

AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

APRIL 1, 1946



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CLOSING DATE—Present printing conditions require that more time be given for putting current issues of the American Nurseryman through the press. So if you send material for either the advertising or the news columns of the **April 15** issue, please mail in time to reach this office by **April 2**.



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AMERICAN NURSERYMAN

F. R. KILNER, Editor

Editorial

TRAINING FOR THE JOB.

While some interest is taken in this field in the government's provision for apprentice training of ex-servicemen, and several nursery firms have taken advantage of the on-the-job training program offered under federal laws, probably most firms will seek their future help without such formal setup.

If the nursery business is to achieve the proportions which are expected when the national program of home building really gets started, a good many employees must be hired and must be trained for this particular type of work. Though many former employees are returning to the nursery business, considerable numbers must be replaced, and additional help secured.

At the present time, the only portion of the labor market which seems at all well supplied is that of able-bodied young fellows, with varying types of military training, but without particular fitness for a civilian pursuit. Observation shows them to be, as a group, serious-minded and earnest, ambitious and responsive, intelligent and ready to apply themselves. The material available for hiring at this time is worth the attention of any nurseryman who proposes to build up his organization in the postwar era.

This is a good time to prepare for later expansion, since the period of training will take some time. There is good reason for investment in a preliminary period of training, since the excellent material now at hand will undoubtedly be taken into other industries as strikes are settled, and the automobile, radio and refrigerator manufacturers, among others, reach the full stride of production.

These young men are worth more than just hiring for a job; they merit training for responsible positions, for which some of them have become well suited by military rank. Each nurseryman may need to formulate his training program in accordance with the nature and scope of his own enterprise. He can gain help by studying the subject—note the suggestions afforded in an article like that on "Selecting and Training Men for Selling" in this issue. If you are interested in setting up an on-the-job training program under the GI bill of rights and other federal laws, you

can get information from your state office of education or the Veterans' Administration regional office, or through the Washington office of the American Association of Nurserymen.

HELP FOR BEGINNERS.

With this issue is completed one of the most outstanding and valuable series of articles which have been presented in the columns of the *American Nurseryman*. Undertaken with a view to giving advice and counsel to ex-servicemen who might contemplate embarking in the field, the series "Beginning in the Nursery Business" has been commended as a guide for the less experienced, as a source of suggestion and information to those longer in the field and as a textbook for those particularly interested in the subject, in forestry, horticulture and landscape schools. Reprints of the articles as they appeared were requested, not only by servicemen and veterans, but a great many more.

Of late, requests have become numerous that the articles be reprinted in booklet form, so that they may be made available for some time to come and to a wider circle of newer nurserymen.

The incoming mail of every wholesale nurseryman, no less than the subscription list of this magazine, reveals the number of persons seeking occupation in this field. That is to be expected for several reasons. One is the general return to the land that follows every war. Another is the postwar boom era expected to accompany home building. Still a third is the increasing interest in gardening that accompanies the development of a mature nation.

For the benefit of the public and for the good name of the industry, these newcomers should be instructed and trained to serve their customers as well as possible. Many will fall by the wayside, but the success of the persistent may be accelerated by proper and adequate counsel.

Hence it is proposed to make reprints of this series of articles available in booklet form, about sixty-four pages, not only for those who wish to buy single copies for their own instruction, but at lower rates in quantity lots for distribution by those who can put them to good purpose. Wholesale nurserymen may wish to give a copy to a new customer, for his benefit and the firm's good will.

The Mirror of the Trade

Associations or local groups may order at the quantity rate for distribution to members. Since the publication of the booklet is primarily a service to the industry, the price is set as low as printing costs will allow, while the value to the recipient will be far greater.

HEMLOCK RARITIES.

Among unpublished contributions to recent plant studies is the extremely interesting thesis, "The Canada Hemlock and Its Variations," written by John C. Swartley at Cornell University just before the war upset all efforts of this type. After V-J day he made a trip through several eastern states to check again on some of the most important variations of this conifer. His comments on the plants inspected, included in a story of the trip, have just been written and begin their publication in this issue.

Readers of the narrative will see the possibilities for wider uses of this fine conifer when its less common forms are made more widely available through increased propagation. Specialist nurserymen will see opportunities for their talents here.

Associated with this evergreen is the name of Charles F. Jenkins, who has gathered as many rarities as he could at his Hemlock Arboretum, near Philadelphia. Not a few nurserymen have contributed, and many more have visited the place. The Hemlock Arboretum is not a commercial enterprise, but solely the expression of one man's interest in the hemlock and his desire to acquaint more people with its merits. Whenever it can do so, the Hemlock Arboretum is ready to supply cutting scions and seeds.

Generally, the hemlock receives less attention than some evergreens whose comparative merit is debatable. Fuller acquaintance, not only with the plant and its forms, but with culture and handling, is certain to bring wider use. Nurserymen who want to give their customers something more than the stereotyped plant forms in the postwar era can give the hemlock particular study.

NATIONAL garden week has been set by the National Council of State Garden Clubs for the week beginning Easter Sunday, April 21, and including the birthday of J. Sterling Morton, the originator of Arbor day, April 22.

A Swing Around the Hemlock Circle

By John C. Swartley

More than six years have passed since the writing of the thesis "Canada Hemlock and Its Variations" for Cornell University. We have been impatient to review the living material, bolster up the illustrations and revise the original manuscript for publication. A start was made in 1940, but the writer was too busy with graduate work at Ohio State University. Then the war years intervened with emphasis on essential work and restrictions on travel. Finally, VJ-day arrived, the tension was lightened and gasoline was again flowing freely. Preparations were made, letters were written, an itinerary was planned and the survey actually begun September 26, 1945, with Mrs. Swartley an interested and enthusiastic companion.

The first visit was with Russell Harmon at LaBars' Rhododendron Nursery, Stroudsburg, Pa. We had come to see the LaBar Gem, a slow-growing, broad, pyramidal hemlock that is related to var. *densifolia*. It is now six feet high, a growth of two feet in seven years. The branching habit is more open than with most clones of this type with a similar rate of growth. The resultant light and shadow effect relieves the density of foliage and makes for a more interesting plant. The LaBar Gem has never been propagated; so Mr. Harmon kindly allowed me to take some cuttings. Two plants in the nursery were marked as a gift to the Hemlock Arboretum at Far Country, Mount Airy, Philadelphia, Pa., a multiple-stemmed plant of Carolina hemlock and a free-growing Canada hemlock with white tip and lateral branchlets. The proportion of white to green leaves was much greater than on any other variety so far observed by the writer. Since layers have been started, this plant will not be transplanted to the Hemlock Arboretum for at least two years.

Mr. Harmon furnished some details on culture of hemlocks and rhododendrons, as practiced in nursery blocks. The young plants, which had been grown from collected seedlings, in beds in light shade, are heavily mulched with aged sawdust after transplanting to the field. The sawdust is supplemented with an application of the special rhododendron mixture manufactured by Agrico. After two or three years, the sawdust has been more or less incorporated with the soil and is partially decom-

posed. Weeds are fewer, heaving is avoided and cultivation is simplified, with better plant production.

In the late afternoon, G. G. Nearing, pioneer rhododendron propagator and grower, of Ridgewood, N. J., led us on a wild goose chase through no fault of his. He had written the Hemlock Arboretum about an unusually dense hemlock in the woods on a ridge above the Rock View House, a hotel about four miles south of Port Jervis on the New Jersey side of the Delaware river. The detailed directions he had written appeared to be adequate, but two hours of hard and fast tramping did not reward me with a sight of the dwarf hemlock. However, when Mr. Nearing found the plant about six years ago, he had severed a natural layer, which is now in the possession of Edward A. Thuem, owner of the Green Meadows Nursery, Harrington Park, N. J. A branchlet recently sent by Mr. Thuem from this plant indicates more crowded twigs and possibly a slower rate of growth than any other clone thus far observed. It is related to the var. *hussii*.

We arrived at the home of Val-leau C. Curtis, Callicoon, N. Y., late that evening. The attraction was the Curtis Nurseries, where the hemlock enthusiast can find the greatest number of distinct variations that are growing in any one nursery. There are so many of them that one is not inclined to make small distinctions. Plants that would stop you in your tracks if you observed them in a meadow or woods would not attract

a second glance here. All of these variations have arisen from seeds or seedlings collected within a radius of twenty miles of the nursery, which, by the way, is located on the Pennsylvania side of the Delaware river.

One of the most unusual hemlocks was named Curtis Ideal Dwarf for "Standardized Plant Names." The original plant is less than four feet high, although it is nearly 30 years old. It is unique in having delicate foliage in combination with very slow growth. Since grafted plants are faster-growing and less formal in habit, they are considered more practicable, commercially, than plants grown from cuttings. Mr. Curtis is most interested, at present, in a gracefully spreading plant that is three feet two inches high and five feet eight inches broad. He contends that variations with coarser, heavier foliage, always accompanied by slower growth, have a correspondingly coarse root system. They are hard to dig with a ball, when grown in his soils, and are slow to recover after transplanting. Since the business is largely wholesale, the prospects have not been encouraging for this type of material. In contrast, free-growing, spreading plants have a good root system and should have a ready market.

Curtis' cultural methods are very efficient. He starts with collected seedlings about six inches high. These are planted in frames in the open sun in preference to the open shade of high-branching trees. The medium consists of ordinary sandy loam



Entrance to Hemlock Arboretum at Far Country.

mixed in equal proportions with humus from a swamp. After being roughly mixed in the bed, it is treated with chloropicrin, which eliminates fungus troubles and makes for more rapid growth. Seedlings are planted any time between early spring and Christmas, except when the growth is too soft. They are protected, when necessary, with lath shading. The boards of the frames are comparatively low, not more than six or eight inches above the soil level. He formerly used higher frames, but considerable loss was sustained one hot summer from reflected and confined heat waves in these frames. Plants grown in this way are little retarded when planted in the field.

Mr. Curtis has also used the sawdust mulch successfully on Mr. Harmon's recommendation. This eliminates heaving, which formerly was often severe. Another practice used on a large scale is the sowing of oats between the rows in August. This is laid low by the frost, providing a mulch over the winter. As is well known, certain nurserymen have been doing this for years.

The next important stop was the summer camp of Frank L. Abbott, near Saxtons River, Vt.

Mr. Abbott has found and named the type plants of vars. *taxifolia* and *cinnamomea*. He has since found another plant of the cinnamon type and, while I was tramping across a pasture with hemlock seedlings growing here and there, I found another sizable plant of the same character. Grafts of these two clones are apparently as nice as the originals, which is the exception rather than the rule. Specimens may be observed at Far Country and at the nursery of Joseph B. Gable, Stewartstown, Pa. Probably the most interesting plant in Mr. Abbott's collection is a dwarf, apparently identical to the one that has been propagated by George L. Ehrle and described by Henry Teusher as var. *minuta*. It is exactly one foot high, perfectly healthy and at least 35 years old. It is the largest existing plant of this type that is known. Harold Epstein wrote that he has a small plant that he obtained from Mr. Ehrle. Does anyone else have one? Of course, such a slow-growing plant is not practical commercially. Mr. Abbott has a few grafted plants of a dense-leaf hemlock that he considers suitable for hedges, but it requires testing before it can be definitely recommended. Grafted plants about 15 years old average four feet in height.

The environmental conditions in this vicinity demand attention. The terrain is very rough, with most of

the land on a slope, but there is no apparent erosion. There are no gullies, and the soil everywhere has an ample proportion of humus, usually spongy. Where the land is cultivated it is kept in grass at least three years out of four. A layer of gravel is found about five or six feet below the surface. Can there be any stronger argument for the importance of humus, a trashy surface of mulch and good drainage, in the control of erosion? The growing season is short, and winters are long. Snow comes in December and usually stays through April; therefore there is practically no trouble from alternate freezing and thawing. In the summer, according to Mr. Abbott, the soil is never dry except in the top two inches during the most severe droughts. All this explains why we could go out in the pastures and find young hemlocks growing



Grafted Plant of Var. *Cinnamomea* at Far Country, 2½x4 feet, about 15 years old.

naturally on sunny slopes, with a compact habit and a compact, fibrous root system like a nursery-grown plant. We dug several 3 to 4-foot plants by cutting around them with a spade and then lifting. We could then carry them around by the tops, the fibrous roots holding a good ball of soil. On Mr. Abbott's property we dug a 5-foot grafted plant that had been growing in the same place in sod for nearly twelve years, using the same method with the same result. The type of plant was the same that Mr. Curtis could not keep a good ball on, even if dug carefully. Plants of various sizes were shipped to Mr. Curtis to find out how they would react at a rather unfavorable time of the year, the first part of October. Mr. Abbott's chief hobby is the hybridization of azaleas. He has sold some excess plants to a nursery. The buyers come with a truck, lift them, load them without burlapping and transport them more than

100 miles with scarcely any mortality. By the way, Mr. Abbott has a choice large, white-flowered azalea with a pink throat, that he has called Jane Abbott. He has never been able to root it from cuttings. Can anyone help him?

By traveling about fifty miles to Amherst, Mass., we went from a comparatively wild, hilly country, with no erosion troubles, to the flat valley of the Connecticut river. There the land is cultivated intensely with the resultant loss of humus, so that on a windy day the dust interferes with visibility in some places. Thus does the hand of man despoil the face of nature. Our chief purpose was to confer with William L. Doran, a research professor in the department of botany at Massachusetts State College. Mr. Doran had kindly consented to cooperate by attempting to root cuttings of superior and promising variations of hemlock which we sent him from time to time. Mr. Doran entertained us with his Irish sense of humor and proudly showed us the town library, which is one of the most beautiful in the country. He also showed us a large katsura tree, *Cercidiphyllum japonicum*, in front of St. Peter's Episcopal church, and two large trees of umbrella pine, *Sciadopitys verticillata*, on the campus. These are thirty-five to forty feet high. Of course, we did not overlook the fine specimen of Sargent weeping hemlock, *Tsuga canadensis pendula*, also on the campus. We managed to obtain a fairly good Kodachrome picture of this plant, which is almost never entirely in the sun.

Four days were spent in the Boston area. The first place visited was the Cherry Hill Nurseries, near West Newbury, Mass., with the purpose of obtaining a satisfactory picture of the Stranger hemlock, named for Walter F. Stranger. The original plant is more compact and slower-growing than grafted plants, giving it a more distinctive character. It would be interesting to compare grafted plants with plants from cuttings, but this opportunity has not yet come. They have more than 300 grafted plants in the nursery and stopped propagating several years ago, since there is little demand. Mr. Stranger also mentioned the coarser root system of this type of hemlock.

The Kelsey-Highlands Nursery, at East Boxford, like the Curtis Nurseries, has a multitude of *tsuga* variations, the number depending on how closely one wants to draw lines. The Kelsey weeping hemlock is quite distinct, and there are several compact plants that are individual and

possibly of some value. But the most interesting variations are those of Carolina hemlock, *Tsuga caroliniana*. The only known dwarf variation, now nearly dead, is in the display grounds. It is broader than high, with a flattened top. So far as known, it has never been propagated. Mr. Doran is trying his luck now. Another variation grows about half as fast as ordinary Carolina hemlock, has stiff, more radial leaves and is bushy with about a dozen stems.

Seth L. Kelsey is interested in hedges and has a good trial plot, about 10 years old. A requirement that he insists on for a good hedge plant, one that had never before come to my attention, is that the lower branches be down-sweeping. If this is the habit of the plant, he says, it is no trick to have foliage down to the ground. The only species in the plot, with branches practically on the ground, is the Serbian spruce, *Picea omorika*. Since that time, I have been judging hemlock variations as hedge plants on that basis, together with the usual requirements.

The color of the plants on many of the hemlock plots at East Boxford is a sickly green, but Mr. Kelsey stated that they prefer to grow them on relatively poor soil. This, together with a gravelly subsoil, encourages a fibrous root system, and they are able to lift most plants up to seven feet high without digging a trench around them.

Harlan P. Kelsey, noted for many plant introductions and for his work on "Standardized Plant Names," appeared on the scene while I was taking some cuttings and we had an interesting discussion. I had always wondered why some of the Latin varietal names had been retained in the present issue of "Standardized Names," while others, apparently of similar standing, had been thrown out. For instance, var. *compacta* of *Tsuga caroliniana* has been retained, but every botanical variety of *Tsuga canadensis* has been discarded. Mr. Kelsey's explanation was that certain Latin varietal names were retained because they had such solid botanical standing they could not be disregarded. The daylight is still obscure, for would you not respect the botanical standing of *Tsuga canadensis pendula*? It is undoubtedly poor taste to distinguish an individual and its progeny with a Latin varietal name, but is there not something to be said for consistency?

Seth Kelsey brought out a point that may help other nurserymen who are either discouraged in the attempt to sell hemlock variations or are contemplating working up a little



Branch and Cones of *Tsuga caroliniana*.

business in this line. He said, they have been advertising the merits of the dragon spruce, *Picea asperata*, rather intensively for fifteen years. Only recently has there been appreciable response to this advertising. Certainly it is going to take time to work up any considerable public enthusiasm for hemlock variations. Our best advice to a nurseryman who is enthusiastic about hemlock variations and really wants to do something with them is first to propagate a few hundred of not more than five distinct and superior clones. When these are of salable size, he should sell them at a reasonable price and attempt to spread them around the section where hemlocks thrive. Instead of selling them wholesale, or indiscriminately, he should sell them to landscape architects, or to individuals, attempting to keep a reasonably accurate record of the locations in which they are planted. Meantime, other plants of the same clone, should have been started in reasonably small quantities. Now it is time to use all of the direct and indirect advertising that is practicable. Inquiries can be directed to plants grow-

ing in the different localities, and if the plants are really superior, there should be considerable response. It is really a project for a young man. Are there any takers? We promise cooperation with advice, propagating material and advertising. Other suggestions for making hemlock variations better known will be welcome.

October 13, 1945, we were graciously entertained by Mr. and Mrs. Walter H. Hunnewell, of Wellesley, Mass. The arboretum was established nearly seventy-five years ago by Mr. Hunnewell's grandfather and is notable for mature specimens of the rarer species of plants, particularly conifers. Nearly 300 trees were lost in the hurricane of 1939; therefore it is not now so great a living museum as before that date. There are only three hemlock variations, the original plant of Dawson hemlock, two trees of a compact type that Mr. Hunnewell called Moon's columnar, although the habit is not columnar, and a large-leaved hemlock of compact habit. We collected cones from the large-leaved plant, since some seeds were viable. We looked for good seeds on hemlock variations

all along the way, but found them only on this plant. Cones were numerous, but most of them were apparently formed last year. Can anyone give enlightenment on the coning habits of hemlocks? Do they normally cone every year? Do cones usually persist for two years?

There are two outstanding cases of natural layering at the Hunnewell Arboretum. One is an old Norway spruce which is partially surrounded with its layered progeny. The tallest of these is more than twenty feet high. Another is an old weeping beech. The trunk has been slowly decaying for years and this past season has died altogether. Yet the tree is perfect except for a few inconspicuous branches on one side. The lower branches layered themselves years ago and produced leaders, forming a colony. It still looks like a single tree from a distance, but actually is a group.

At the Arnold Arboretum we met William H. Judd and inspected the hemlock collection, which has not changed much since 1938. An odd-looking weeping plant, resembling the Kelsey weeping hemlock, was labeled *Tsuga canadensis pendula*, from the Eastern Nurseries. It was not at all typical of this clone; therefore the writer brought it to the attention of Mr. Judd and Mr. Kelsey. Nothing has been heard from either source. According to Mr. Kelsey, he had presented one of the three original plants of Kelsey weeping hemlock to the Arnold Arboretum years ago. Some time after that he received the report that it had died.

Going south from Boston, we stopped at the Stoughton Nurseries, near Stoughton, to check on the Laurie hemlock, a multiple-stemmed globe in 1938. The original plant and another plant almost as large were no longer globe-shaped. The parent plant in 1938 was about five feet high and nearly as broad. Now it is nine feet high and six feet broad. The two plants, with the same structure, at Far Country, have undergone the same change in proportions. These are seedlings that originated in the South Wilton Nurseries, Wilton, Conn. Another plant with the same habit, in the Rock Creek Nurseries, Rockville, Md., still retains the globose shape, but it is not so large as the others. We shall continue to observe this plant carefully.

About nine years ago, 300 plants of the Laurie hemlock were propagated from cuttings. These were grown on with little loss; therefore the method of handling should be of interest. The rooted cuttings were

placed in flats in late winter, and in the spring the flats were set on the ground in light shade. In the fall the flats were shifted to a cool greenhouse, and the following spring the plants were set in a frame exposed to the full sun and later transplanted to nursery rows. These plants now average three to four feet high. Most of them have been sold through Fletcher Steele, the noted architect. The limited market and the comparatively small price received for these plants has not encouraged Mr. Laurie to continue propagating this clone.

Since we had never been out on Cape Cod, we decided to make a slight detour from Stoughton and spend the night at Hyannis. All through the cape the effects of the



Kelsey's Weeping Hemlock.

hurricane of September, 1944, were evident, either in numerous piles of cordwood, scattered through the undergrowth or uprooted trees that had not yet been converted into firewood. Near the beach at Hyannis were groves of trees that resembled apple orchards from a distance. But they were pine trees that had succumbed to the effects of sea water. Some of the small estates along the sea were virtually ruined, so far as plantings were concerned.

The next important stop was at Storrs, where the Connecticut State Agricultural College is located. A. E. Moss, formerly of the forestry department at the college, had reported observing a variation near Storrs that apparently perpetuated itself through seed. Raymond Wallace, a plant physiologist, discovered this group some years ago near the north border of the town of Mansfield, east of the Fenton river. The habit of branching is fastigate, more nearly like the Lombardy poplar than any other hemlock so far observed. In

the woods the shape is rather narrow, but if grown in the open, the plant is broader. At least thirty plants of various sizes, up to twenty-five feet high, were observed in the woods, scattered over a considerable area among normal hemlocks. Only one small plant was found, and this was sent to the Hemlock Arboretum at Far Country. This variant is of more interest botanically than horticulturally.

On the campus of the University of Connecticut, Mr. Moss called attention to a graceful bushy hemlock about forty feet high. The framework consists of six large trunks, and the branches are upreaching. The general effect is much like ordinary hemlock except that the plant is more compact. This tree is apparently a variation that develops into a graceful compact shape without pruning and holds its lower branches exceptionally well. It was planted in 1900 and has never been propagated.

In the afternoon we visited an ideal hemlock collecting locality in a sphagnum swamp, about six miles north of Storrs. Here one can pull up well rooted plants of various sizes, with enough sphagnum adhering to the roots to keep them moist. Mr. Moss says he has pulled up plants four feet high and planted them near his home with good success. Unfortunately, the area is limited in size.

[To be concluded.]

TRUCK OUTPUT LAGS.

Nurserymen who have been looking forward to buying a new truck may have to wait until the fall to make their long-awaited purchase. Although the major strikes have ended, it will be at least six months before truck production hits its peak.

The truck backlog totals between 2,000,000 and 2,500,000 vehicles, since less than 600,000 trucks have been produced during the past four years, an amount equal to one year's normal output. With wage and price problems settled, truck manufacturers foresee an output of 800,000 to 1,000,000 trucks in 1946. When the automotive industry reaches full stride, it can produce between 1,250,000 and 1,500,000 trucks annually. According to Richard T. Purdy, manager of the motor truck division of the Automobile Manufacturers' Association, an annual production of 1,000,000 trucks during the next four or five years will be needed to meet domestic and export requirements. This would be more than fifty per cent above prewar levels.

Selecting and Training Men for Selling

By Clarence E. Moore

The selection and training of salesmen is only one specific part in the over-all business picture. In order that this part of the picture may be viewed in its proper relationship to business as a whole, it might be well to consider briefly the basic character and implications of a functioning business.

The ultimate goal of every business is to make a reasonable profit. To reach this profit goal, the business must produce goods or services and it must distribute these goods or services to buyers. In other words, efficient production and adequate distribution equal reasonable net profit. The theory is as simple as that.

If a business does not make a reasonable profit, the fault must lie in one or both of two departments: Production and/or distribution.

American business in general has no major production problem today. The nursery business has developed the "green thumb." Dick White summed it up in his news letter of November 21 when he said, "We in the nursery business know that we can produce."

By process of elimination, then, your major problems in the foreseeable future center on distribution.

Can you market your products in the volume you desire?

Can you create the demand you need?

Can you get your fair share of the consumer dollar in competition with other types of business?

Distribution depends on demand. For enduring business success, demand must be created. To rely on spontaneous demand in a competitive business for more than a short time can lead only to financial anemia, followed, sooner or later, by the economic death of the business. There is no greater demand for any item than there is for bread. It is an essential food. Yet a bakery can fail while people are buying large quantities of bread—some other bakery's bread.

According to the United States Department of Commerce, every normal year records the death of 250,000 to 450,000 business enterprises. I wonder how many of these businesses die because of inability to produce. I'll gamble that, for the most part, the plague starts in distribution and production dies on the vine.

The distribution problems of the nursery mail-order houses and the

Prospective return of competitive conditions in the nursery business make particularly valuable this timely talk on selecting and training men for selling by Clarence E. Moore, agency organizer of the Grand Rapids agency of the Mutual Life Insurance Company of New York. Since it was presented at the joint meeting of nurserymen's organizations at Chicago in January, so many requests have come to the author, and to this magazine, for copies that not only is the paper being published in full here, but reprints will be made available to readers who send a stamped self-addressed envelope. By its use, the nursery sales manager can check his methods and obtain the higher type of salesmen that this industry will wish to employ in its postwar development of sales.

cash-and-carry retailer are outside the scope of my remarks. For those of you who use salesmen, however, I should point out that the salesman fits into the over-all business picture as the heart of your distribution.

In the days ahead you will need more than just salesmen—you will need good salesmen:

1. You will need good salesmen because other types of business, in competition with you for the consumer dollar, are going to have good salesmen.

2. You will need good salesmen because poor salesmen will cost you money. They will cost you money because they do not get the potential business out of a given territory, because they require more of your time, effort and supervision, and because they create a large turnover in your sales force. In raising the cost of distribution, the poor salesman dissipates your gain in production net cost, thus decreasing your net profit.

3. You will need good salesmen because the consumer has seen enough of poor salesmen in the past four or five years and he is in no mood to accept less than good salesmanship in the future.

There is a positive evidence today of increased interest in selling as a vocation. The supply of men who desire sales work will increase during the year ahead. Your first job is to select from this group the men who can be profitably trained to fit your preconceived idea of the job you want them to do. Yes, you must select those men—pick them out. No good sales force can be developed

without applying the principle of selection. Every minute you spend on the selection process will save money and eliminate headaches later.

Has your mouth ever watered in anticipation of a chicken dinner, which, when it finally materialized, turned out to consist of the toughest bird that ever wore feathers? When I was a boy, I had the good fortune to possess an aunt and uncle who owned a farm. Many are the chicken dinners I consumed at their table, but I can never remember one tough piece. Occasionally, I helped to catch the chicken, with a long piece of wire bent into a V on the end, which V enabled me to hook said chicken by the leg. The chicken I caught was usually set free again. Then my uncle took the wire and, looking the flock over, he'd go after one particular chicken. He'd feel its breast and its thigh, look at its comb and maybe release it for another. All of this was very disgusting to me. After all a chicken was a chicken. Now I know that my uncle was a wise man. He was not after just a chicken; he wanted to find a chicken that would cook tender. Where the tough chickens in that flock went, I do not know, but they certainly never appeared on his table.

If we want a good chicken dinner, we must pick a chicken that has possibilities. By the same token, if we want a "cock of the walk" salesman, we must select a "bird" who has some potentialities. Otherwise we are likely to face a "tough" situation.

It has often been said that good salesmen are born. May I point out that poor salesmen are born, too? It is true that some men have more obvious qualities to make them potential salesmen than do some other men. These are the men you seek.

What are some of these qualities of the salesman that we should look for? The stories told about salesmen no more apply to good salesmen than do the stories told about women apply to your wife and daughter. A good sales-type man differs from his fellow men largely in the quantity and in the balance of positive personal characteristics, rather than in the quality of those characteristics. He is like everybody else except that he is more so. He is more sociable, he gets acquainted more easily, he lives in a more friendly world, he likes to deal more with people than with things, he is in good health,

he has a happy home life, he dresses properly, he is a stable personality—dependable—he is optimistic by nature, he has a naturally ready smile, together with a sense of humor. He is intelligent, he thinks quickly, he has a competitive spirit and a quality of persistency, he is persuasive but not argumentative, he welcomes constructive suggestion and competent direction. He is sincere in business deals, he is loyal to his firm. He has energy—he'll work—he can organize both his work and his time. He has tact, imagination, resourcefulness; he takes pride in achievement, and he is a thermometer of human reaction—he senses what people are thinking.

You may think it strange, but I know a number of top-notch salesmen in different businesses who possess every one of these qualities. I know of no poor salesman who has all of these qualities. Furthermore, it is my opinion that the fewer of these qualities a man has, the less chance he has of becoming a top-notch salesman and of being an asset to his firm.

Hiring salesmen is easy. Selecting good salesmen is not an easy task. Selection can be accomplished by human appraisal, or by scientific appraisal, or by both in combination. To illustrate the combination appraisal in action, I submit to you the selection process used by the firm with which I am associated, the Mutual Life Insurance Company of New York.

The applicant is first asked to complete an aptitude index which was scientifically developed over a period of ten years' study of the personal history and personality characteristics of more than 10,000 life insurance salesmen. The aptitude index is neither an examination nor an intelligence test, but a yardstick which helps to determine whether the applicant has the personality characteristics and background of a successful life insurance salesman. The grades on this index are A, B, C, D, E, with A being highest and E lowest. Today, if the applicant attains a grade less than A or B, we usually stop negotiations at that point. Why?

Because use of the test in the past has demonstrated that the number of salesmen in any one rating required to produce \$1,000,000 of business during their first year is as follows: A, 18; B, 21; C, 43; D, 56; E, 119.

No superior salesman emerged from the lower three ratings. We know that the degree of success attained in his first year is a valid indication of the salesman's future accomplishment. We can eliminate at the start most of those men who would find only disappointment in life insurance sales work. Is it not good judgment to look for eighteen men who can do the same job that otherwise might require 119 men?

However, we cannot assume that an applicant who gets an A or B on the aptitude index will automatically be the man we want. Human appraisal must supplement the scientific aid. It is, in fact, largely on human appraisal that the final decision must be based. We must know many things the index cannot tell us.

We want to know whether he is honest, whether he will work. Does he have initiative, imagination, competitive spirit. We want to know what his reputation is, what his home life is like, how successful he was in previous job, whether he is financially stable and many other things.

If he passes both scientific and human appraisals, we secure a corroborative report from an independent source of investigation and, if this report be positive, we hire him. The more I deal with salesmen, the more I become convinced that selection is nine-tenths of a good sales force. If you select a good man, it is possible for him to emerge as a good salesman even with inadequate training. But if you select the wrong man, the best training in existence cannot make him a good salesman. A draft horse will never be able to go around the race track as fast as a race horse. He is not built right.

No doubt you select salesmen by the human appraisal method, but do not sell the scientific appraisal short as a valuable supplement to human appraisal. Whether you employ five or 500 salesmen, scientific tests of the qualities necessary to a sales personality are available to you through research and personnel consulting agencies throughout the country. If they save you time and money, they are worth investigating.

Regardless of what selection methods we may employ, the final decision must be based on human appraisal, wherein lies great chance for miscalculation. If a salesman fails be-

(Continued on page 50.)

ERRORS IN LEADERSHIP—THEIR CONSEQUENCES AND CORRECTION

Errors in Leadership	Probable Result if Not Corrected	Suggestions for Improving
Unfairness Partiality	Lose respect of favored ones—Arouse resentment of others	Put yourself in other's place—Play no favorites
Setting bad example	Contagious—Others will "follow the leader"	Review own actions (or lack of action) from this standpoint
Shirking responsibility	Creates dissatisfaction—Impairs morale—Is also contagious	Never "pass the buck"—Shoulder own responsibilities
Quick-tempered	Men become uneasy and resentful	Develop sense of humor
Lack of patience	Men unwilling to admit when they don't understand	Take things more slowly—Work on self-control
Lack of consideration	Men will not respond to motivation or appeal	Be "human"—Allow for shortcomings of others
Too familiar with men	Loss of discipline	Maintain reserve befitting position as leader
Unapproachable	Loss of cooperation	Take closer personal interest in each man individually
Failure to establish understanding	Suspicion—Lack of confidence	Talk matters over on man-to-man basis
Inconsistent	Hesitation—Lack of initiative	Adopt a uniform policy and adhere to it
Ignorance of job	No respect of confidence Men won't follow lead	Study and continual practical experience
Failure as instructor	Men cannot perform work properly	Learn recognized training procedures and use them
Unwilling to take suggestions	Loses cooperation and loses benefit of valuable ideas	Deliberately ask for advice
Failure to give credit	Creates resentment and kills initiative	Commend privately and publicly

Insects and Diseases of Nursery Stock

By M. B. Cummings

A number of rather serious insects and diseases occur on nursery stock. The amount of damage done and the loss sustained vary with the season and change with weather conditions; they also vary with the species of plant grown and the attending and current attention given to the various disorders. This article will be limited to the most serious troubles with trees and shrubs, but includes the pests of both evergreen and deciduous species.

Troubles with Evergreens.

The increased planting of evergreen trees and shrubs within the past decade has brought many problems of pest control to the front for seasonal attention. Insect pests will be first considered.

Spruce gall seems to head the list among pests of evergreen trees, as it is becoming widely spread both in the wild and in constricted places. The gall on spruces of several species is the work of the gallfly, sometimes referred to as spruce cone gall, and is caused by the species *Adelges abietis*, which produces cone-shaped green-brown galls (Figure 1) nearly an inch long, sometimes more, at the base of the young shoots. These galls are small but somewhat conspicuous disfigurements, and when numerous, they nearly spoil the tree. They occur most commonly on Norway spruce, but are becoming abundant on Sitka and Douglas fir. Once established in a district, dozens of galls may be found on single trees in nurseries, parks and dooryards.

The gallfly responsible for deformity passes the winter in the gall structure as a partly developed worm. In the spring the development is completed, and the mother fly emerging in August may deposit as many as 300 eggs in masses of white woolly matter. When hatched, these small worms crawl to the tender shoots and there establish themselves. The sucking of these aphids causes the deformity resulting in swellings, known as galls, which resemble small pineapples. Early in the fall the malformations lose their dark green color, turn brown and crack open, releasing the creatures as flies.

The control of gall damage is effected either by cutting out the little structures while still small or by spraying. To be effective, the cutting out must be done in the late fall or very early spring while

the creatures and their eggs are contained. Spraying the trees in early spring, about May 1 in New England, with a miscible oil or a dormant lime-sulphur gives excellent control if the trees are well drenched before growth starts. Uninhabited galls should be cut from the trees, as they look bad; inhabited galls should be destroyed by burning or deep burying to break the life cycle.

Spruce sawfly is a new insect of tremendous importance and is causing much widespread concern over forest areas and among cultivated plants of parks and dooryards. It also oc-

curs in nurseries. Its estimated spread this year covers 150,000 square miles. The species is of European origin. The adult fly (Figure 2) is somewhat like a small bee with four stout wings and yellow markings. It lays its eggs in spruce needles. The worms (Figure 2) from hatched eggs feed on the needles, consuming the old ones first. By feeding all summer, they defoliate the tree. Except in earlier stages of infestation, most of the larvae lie dormant in their cocoons for a year or more, thus insuring the perpetuation of the species.

The control of this serious insect



Legends of diagram: (1) Spruce gall, conelike in structure, showing exit holes. (2) Spruce sawfly, worms at left, fly at right. (3) Spruce budworm with moth, worm, pupae and egg mass at left. (4) Work of leaf miner, light patches eaten out. (5) Rust on hawthorn leaf. (6) First-year cedar apples on cedar. (7) Second-year cedar apples on cedar forming spores to go to apple. (8) Black knot on plum. (9) Blight on pear twig, end leaves dead and brown.

can be effected in cultivated areas, such as nurseries, parks and door-yards, by spraying the trees with insecticides, such as arsenate of lead, rotenone, DDT, etc., but in forest areas resort must be taken to parasites, such as microelectron, a wasp the size of a pinhead, which destroys the cocoon of the sawfly.

The spruce budworms, full-grown caterpillars which are about three-quarters of an inch long with thick, dark brown bodies bearing conspicuous yellow-white warts, do much damage. They work on balsam and spruce as ornamentals and in the forest, gnawing off the base of needles and leaving the base of scales and needle tips loosely attached. Spray as for sawfly for control. In some cases the wintering caterpillars can be collected and destroyed.

A Disease of Evergreens.

Red cedars are subject to the disease known as cedar-apple rust (*Gymnosporangium*), because it lives on cedar and apple trees (Figure 5) as alternating hosts, each species being required for perpetuation of the fungus in its life cycle. Not only on the red cedar, but on any variety or form of it, the rust fungus forms the cedar apples, or galls, illustrated in Figure 6. These galls vary in size from one-half to one inch across, are shaped somewhat like a kidney, are reddish-brown in color and about the size of a nutmeg. They develop spores in spring that spread the rust to apple trees. These galls, which are tough and spongy, grow throughout the summer of the second year, attaining full size by fall. The next spring the galls become soft, and brown horns push out over the surface of the structure, which form sports known as teliospores. With the advent of spring rains, these horns become gelatinous and form sports (Figure 7) which spread to infect the leaves of apple trees—not to other cedar trees. Spots form first on apple foliage, and later scars develop on the fruit, spoiling its looks and therefore its value. To control, one may cut down the cedar trees if badly infested or cut out the galls on them to control the rust. Cedar apples are of common and continuing occurrence in nurseries where red cedars grow. In the nursery pruning the galls is the only necessary control measure.

Insects on Deciduous Species.

Birch, lilac and elms are subject to much injury by leaf miners, which are little worms that eat out the middle of leaves between the upper and under surfaces, making the foli-

age patched with light blotches (Figure 4) which are nearly transparent. An egg is laid in the tissue of the leaf, and when it hatches, the worm eats within and consumes the tissue between the upper and under surfaces, causing the white blotches.

The lilac miner, *Gracilaria syringella*, works in the leaves during June and July for the first generation, and from July until September for the second. Spraying with nicotine and arsenate of lead while the worms are small will kill them. It should be done before the leaves roll.

The birch-leaf miner, *Fenusa pumila*, is of European origin and is a small black sawfly, one-fourth of an inch long, which appears on the developing leaves in spring and deposits its minute white eggs in little blisters in the new leaves. When the eggs hatch, the little worms eat out the tissue between the upper and under surfaces. Spraying with nicotine just after the eggs hatch, about May 10, is quite effective.

The elm-leaf miner, *Kaliotenus ulmi*, is chiefly troublesome on the Camperdown species, seldom on the American elm. It is a small, black sawfly, one-eighth of an inch long, which causes circular blisters. Nicotine sprays in early June are effective.

The other leaf miner, *Phyllotoma nemorata*, is similar, but appears later, about July 1, when the same spray as for the first species noted above is needed. The chief difficulty in all cases is to time the spray properly to secure control.

Diseases of Deciduous Trees.

Black knot, a malady of plums (Figure 8), cherries and peaches, is too common to need description, but a point often overlooked is that in pruning out the knots it is necessary to cut several inches, six or eight, below the apparent extent of the growth, in order to get below and behind the disease, for it extends beyond its apparent location. If this is not done, black knot will break out again later on. Furthermore, most of the infection comes from wayside and fence-row trees that are not cared for. Often this explains the recurrence of black knot. Common fungicidal spray put on after blossoming time generally will prevent infection.

Fire blight is a bacterial disease that is common on pear (Figure 9), apple and quince trees and is the most devastating malady in the nursery. It is highly contagious and spreads with alarming speed. Its symptoms are easily recognized. Leaves near the growing tip suddenly wilt, turning brown or black. Twigs

wilt; the bark discolors, shrinks and wrinkles, and the flowers blight and are soon killed by infection. All these symptoms occur at blossoming time or soon thereafter, as bees spread the disease to the flowers and other insects, such as lice and leaf hoppers, distribute it to the foliage. The inner bark of twigs and branches is slimy and pinkish in color on affected limbs.

As no spray is effective in control, pruning becomes the best combat method. It is urgent to disinfect all tools between cuts or wounds that are made and thoroughly cleanse the cuts with a disinfectant, such as formalin, one part to ten of water. It is important to destroy in part or in entirety the affected parts of trees.

Apple canker forms dead brown or black areas on limbs and at crotches of apple trees. Its full name is black rot canker, and it has several manifestations in its life cycle. It forms spots on leaves and canker on limbs and causes the fruit to turn hard and black and wrinkles the skin where may be seen little black points. Sulphur sprays in the foliage check the disease there; destroying the black fruits kills it out there, but on limbs and in cracks it must be cut out and burned. Black rot canker is infectious.

REBUILD MANILA LIBRARY.

The scientific library of the bureau of science at Manila, Philippine islands, is endeavoring to rebuild its collection of technical and scientific publications which was destroyed by the Japanese during the war. At the outbreak of hostilities this library was considered to have one of the largest and best known collections of its kind in that part of the Orient.

A request has come from the Philippine secretary of agriculture and commerce for donations of whatever technical and scientific publications can be spared now and in the future to aid the library in replenishing its collection. Donations should be sent to the Scientific Library, Bureau of Science, Manila, Philippines.

CLIFFORD V. LODING, owner of Loding's Ornamental Evergreens, Moline, Ill., is opening a retail establishment in the bridge-way addition one mile south of Moline. A store, 20x20 feet, will house the office. Seeds, bulbs, flowers and gardeners' supplies will be sold at the store. A large yard will be developed for outdoor display grounds of nursery stock. Mr. Loding has been actively engaged in the growing of evergreens for the past twelve years.

Extending the Planting Season

By Milford R. Lawrence

Why attempt to extend the planting season? Haven't we already got headache enough and to spare? Three reasons for extending are:

1. Because you have to, to fill off-season or delayed orders.

2. Because you want to satisfy late customers, to increase sales and profits (more later about this), to maintain steady productive employment for your crews and your equipment.

3. Because you've got to, to keep a jump or two ahead of your overhead, your taxes and your creditors.

In the midst of the peak season many are the times you and I have wished to high heaven we could spread our work more evenly over nine or ten months or eleven (give us one month a year to catch our breath, take inventories, plan ahead and attend conventions!), instead of bunching everything in April, May and June, September, October and November. The grass looks greener in the other fellow's pasture, and we wish for a while we sold fuel oil, or groceries, or steel, or baby carriages, or some other absolutely essential product.

But after all is said and done, we would not and should not be satisfied to thin out our present total year's business evenly over eleven months—we'd hustle out to get more business than ever, because what we had before, if spread out evenly, would then seem too thin for us. A couple of loads of manure look pretty big in a pile, but it's possible to spread it so thin it does not do its stuff.

So you start to extend your planting seasons.

In what directions?

Earlier in the fall? Yes. O. K. for evergreens and some perennials, as we all know. Better than we used to believe for most deciduous materials.

Late fall and winter? To some extent. Much depends on climatic conditions in your own locality. If freezing is occasional or intermittent, prepare the ground early and keep it open by mulching. Mulch the particular trees in the nursery to keep them from freezing in. You cannot do frozen-ball moving if it does not stay cold in your section long enough to freeze a ball properly. If you have a climate cold enough and proper equipment, a lot

of frozen-ball work can pep up any winter's sales (once you get the orders).

That brings us to the biggest opportunity for extension of planting work—late spring and summer. We on Cape Cod were steered into this, knowingly and willingly, by our large contingent of summer-resident property owners, a good many of whom do not get interested or make up their minds about their summer home grounds until it's almost time for school to be out in June. Then things are apt to happen quickly. Suggestions must be digested, estimates submitted and approved, ground prepared and planting done.

It's up to us to produce, and guarantee, the goods.

Three main factors govern the success of late spring and summer planting:

1. Thorough preparations in advance.

2. Actual handling of stock.

3. Aftercare.

First, as to advance preparation: You must properly prepare (1) the customer, (2) yourself, (3) the ground, (4) the stock.

1. Preparing the customer.

He must be sold the idea. Advertising is good. Personal selling and contact are better. To be able to prove to his satisfaction that you have done it for others and can do it for him successfully is best. He knows just enough about horticulture to be sure it is too late in the season—may think it is a racket. Furthermore, it is going to cost more to do it in late June or July than it would have in April or May. He must be prepared for that, diplomatically, too. Sell him on the wisdom of your own men doing this special-handling type of late planting, rather than delivering the stock to him for his man to plant. You cannot afford to guarantee it if you do not have complete control over the actual planting operations. Do not trust to someone else too much.

2. Preparing yourself.

Have the necessary equipment ready. Have a nucleus of men experienced in the special handling of stock. Have your cost data and your prices up to date. Have your quoted prices ample but fair. Pray for decent weather, at least for the wind to stop blowing the day you are going to plant.

3. Preparing the ground.

Get this done as much ahead of

time as you can. How to prepare it is not part of this talk; you know your own methods. But be sure the groundwork is completed before you bring your plants to the job. You cannot afford to have stock lying around in sun or drying midsummer winds while you remove old stumps or poor subsoil, bring in loam, dig in manure. Be sure, in advance, that adequate watering facilities are within reach.

4. Preparing the stock.

The proper preconditioning of plant materials is vitally important. With the exception of a few varieties, do not attempt summer handling of large plants that do not have good root systems; that is, plants that have not been properly transplanted or root-pruned in the nursery. Assuming all your stock has been well grown in that respect, practically all evergreens, except perhaps pines, spruces and firs, can be successfully moved any time from April to December; all the year around, for that matter. On pines and spruces moved just when soft new growth is reaching its full length there will probably be trouble; you may have to cut off half or even all the length of that new growth just at that time of year.

Practically all deciduous trees can be moved with a good ball—sometimes actually better a little later than in the middle of soft growth.

Of shrubs, certain kinds like philadelphus, a good many viburnums, caragana, cydonia, elaeagnus, hydrangeas, symphoricarpos, tamarix and vitex, which are likely to be needed for late planting, had best be dug in April and immediately replanted—not heeled-in—to check their new growth and hold them back. Then when they are needed take them up and puddle them thoroughly, instead of trying to ball them. Buddleias, almost all vines, tea roses, polyantha, floribunda and bush roses, as well as climbing roses, are best handled from deep pots. Practically all other generally used shrubs are best handled B&B, well soaked down. A few kinds like the privets, barberry, spiraeas, rugosa roses, and perhaps deutzias, forsythias and lilacs, can be held fairly well in storage houses late enough for summer planting. It is not always reliable.

Many opportunities come also for the late planting of perennials. In general the same principles apply. The prime objective should be husky root

Address of Milford R. Lawrence, Falmouth, Mass., on "Extending the Planting Season in the Nursery Business," presented at the meeting of the National Landscape Nurserymen's Association, at Chicago, January 15.

systems. They and they alone can furnish the necessary support to carry the almost full-grown tops through the shock of midseason transplanting. Kinds with fairly large root systems can be balled and burlapped. On these, as on shrubs, use the open weave burlap. *Hemerocallis*, Japanese iris, phlox, large nepeta clumps, big foxgloves, lupines, delphiniums and the like are well handled in that way. They are often too bulky to be handled economically in pots, as a rule. Yet I have often imagined having a perennial nursery with enough of every variety in pots to permit selling to be continuous through the whole summer, when customers can come and see and select to their heart's content. Lilies, of course, can be easily handled in pots even in full bloom. Chrysanthemums, aconitums and poppies are best from pots, and so on.

If you can afford the overhead cost of a watering system and can keep the perennial beds watered regularly, your late planting insurance is thereby at least doubled. It is almost suicide to have to dig perennials in midseason out of a dry ground that falls away from the roots the minute they are lifted. Perennials, too, can be lifted and replanted in early spring, more especially the larger kinds, to delay their growth, but this is not quite so helpful with perennials, which grow quickly anyway, as it is with woody plants.

Regarding the second main consideration, the actual handling of the stock, this is probably the most important stage.

Some stock will be B&B, some will be puddled, some in pots, as mentioned a moment ago.

Assemble the whole order in the coolest shed you have as fast as it is dug or selected, and water it down thoroughly, roots especially, but tops as well, trees, shrubs and perennials, and leave it in this shed overnight. Do not attempt to get any part of the order to the job and plant it the same day it is dug. That one night's cool storage, indoors, out of the wind, is a lifesaver, literally. If you cannot contemplate assembling the whole order in one day, either work overtime to get it all under cover and soaked down, or else plan to put off the planting of the unassembled items one more day.

Next day get your planting crews and superintendent on the job before you start your stock rolling. They will open and water the holes for the larger items before the stock is brought in, have watering equipment at hand and everything ready to go.

Load the stock on your trucks carefully. Haste is waste here. For con-

venience and timesaving on the job, keep all of any one kind together as far as possible. If the order is large enough for more than one truckload, your planting superintendent should break down his list into two or more sections of the job. Work with him by taking time enough to load by sections correspondingly. It saves a lot of time chasing back and forth on the job. It should not be necessary to water the stock after it is loaded on the truck. Occasionally you may have to, but it makes everything heavier and messier to handle on the job. Cover each truckload completely with canvas, lashed down securely. If tops of trees stick out beyond the canvas, it will pay to wrap them in moistened burlap. Twenty minutes' wind whipping will blacken and ruin soft foliage. It is bad for the plant and worse for the impression made on the customer if he is there and sees it arrive in that shape.

Make delivery as quickly as possible. Do not ship by rail, freight or express in late-season plantings if it can possibly be avoided. It means at least two extra handlings, as well as too much elapsed time between digging and planting. Truck delivery, nursery direct to customer, is imperative, and utmost care in handling is equally so. Rough handling of B&B stock at any point along the line may easily mean the failure of the plant. The men must all be trained in such minor details as handling "by the sack" instead of by the tops.

Unload and stack in shade and out of direct wind if possible, roots to the wind, all of each kind together. Then cover the roots. If the wind is blowing, cover the tops too. As part of the plants are taken out for planting, cover the rest again each time. These commonplace common-sense details sound picayune, I realize. Each is very minor in itself. Together they are all-important in hot weather planting. One careless action may mean loss, replacement and dissatisfaction.

Plant each plant with all reasonable care.

Fill holes about two-thirds full of soil; run the water at less than top pressure and take time to poke the hose down into the soil in a half-dozen places all around the roots, not just one or two. Half an hour later fill and tread in firmly all around to eliminate air pockets. In final smoothing up, leave a shallow basin around each plant for watering in following days by the owner, if necessary.

A moderate amount of pruning at planting time is necessary. Sensible thinning and shaping is done, as in normal planting seasons. New soft

growth, if badly wilted, will have to be cut back; if only slightly drooping, it will usually perk up during the first night and stay up. Stripping of foliage is not recommended. It is better, if necessary, to prune back the new growth twigs entirely, for if the leaves are too battered or are stripped they cannot bring moisture into the twig and it too will shrivel. On pines and spruces, as mentioned before, it may be necessary, when new growth is long and soft, to cut back half-way or even almost entirely, and let new buds form to replace it next season. Perennials as a rule, if properly handled, will need no cutting back, except perhaps two or three kinds like gypsophila and platycodon if they are quite advanced and "flop."

Now comes the oft-neglected matter of provision for aftercare. If the customer has a competent gardener or grounds force, they can do all the remaining essentials, but you will do well to go over such items with the owner and caretaker together to reach a mutual understanding that they will be attended to, and properly. Then all you have to do is clean up your rubbish thoroughly, leave the place a little neater than you found it, cross your fingers and go ahead to the next job.

But if there is no reliable caretaker you still have a few tasks to perform. Trees over six feet high, generally speaking, should be rigidly guyed three ways. Use wire, not rope. If guys come down to the ground where people are likely to pass, attach a lath part way up the wire so that no one will be likely to trip or bark his shins. Use strong guy stakes that will not crack off when the power-mower hits them. These little details are not vital to the life of the plants, perhaps, but they create desirable good will and acquire merit.

Surface mulching after hot weather planting is logical, though it often is omitted, and perhaps safely so, provided the caretaker can and will regularly cultivate the surface soil, thereby creating a mulch of loose dust after each watering by man or nature. Well rotted manure is good, of course. It costs and smells more than other types, such as old hay, native peat or leaves, which invariably blow off the beds and onto the lawns. The whole purpose, of course, is to slow up evaporation of soil moisture.

Watering in the weeks following planting is less necessary than most owners and some gardeners believe, especially if thorough watering is done as described under planting. Only in the case of abnormally protracted dry weather is surface watering necessary. In that case the hose may lie

on the ground among the plants and allow the water to run all over the bed. In general, the best treatment is to spray the foliage well at the end of the day. The exceptions that prove the rule are hybrid tea roses and perennials already in flower. I have seen large trees literally drowned (and lawns ruined) by too constant ground soaking.

Trunks of deciduous trees, and even evergreens of the larger sizes, may be wrapped with burlap or "ripple craft" paper for as much as a year or even more after planting. More evaporation passes through the trunk surfaces than is commonly realized. The use of wax compounds sprayed on is another treatment for which great success is claimed. I should like more specific knowledge of its actual use.

As I have said, most of these protective aftercare measures can be carried out by the caretaker, if any and if properly qualified. Otherwise we should do that work ourselves. It means a material increase in the total cost of our planting job. The necessity for and the cost of it must be anticipated in our estimates and explained to the customer in advance. The omission of the work may mean the difference between success and failure. The omission of the costs from our quoted figures may mean the loss of much-needed legitimate profit. Do not attempt competitive bidding for late-season planting unless the specifications are identical for all bidders and provide for both well prepared ground and adequate aftercare. Late-season planting inevitably costs more than normal-season planting. But the gaining of a whole season's time and enjoyment and the almost amazing overnight creation of a completely matured effect are worth money to the customer. If they are not, advise him to wait until the next fall or spring, rather than attempt a half-done job. It still costs less to do work well once than to do it poorly at first and do it over again.

With thorough preparation, proper handling of the stock and adequate provision for necessary aftercare, there is every reason to be fully confident of success in extending the planting season into the summer months, to the mutual advantage of our customers and ourselves.

JACK H. RANDOLPH is now engaged in landscape service at Jackson, Tenn. Prior to war service he operated a small nursery at Jackson and lately has been employed by the Arthur Murray Co., Inc., Memphis, Tenn.

FOG MACHINE AS SPRAYER.

Expense and time required to apply sprays to orchard and horticultural field crops may soon be sharply reduced.

This is indicated by recent trials at Michigan State College using an artificial fog-dispensing machine that saw service on the Rhine river in Germany to cover troop movements during the Allied crossing.

The machine was brought to the college under the sponsorship of the horticultural department in cooperation with the Todd Shipbuilding Corp., New York. It was tested at the college with various types of sprays in orchards, on pastures, waste land, golf courses and field crops and in barns. It was then moved into the Grand Rapids and Shelby fruit areas for additional field trials.

The results, in the opinion of Dr. H. B. Tukey, department head, were very satisfactory. But, he explains, the experiments were only preliminary, and more exhaustive trials and further development are necessary before recommendations can be made.

Specialists who viewed the tests agreed that the fog machine offers

and vaporizes the material, the fog machine makes possible the use of an oil base and a highly concentrated mixture. Transportation of large tanks of water is eliminated. One-half gallon of liquid in the fog machine will cover as much as 125 gallons of water-mixed spray in the standard rig.

Of particular value is its possible use in applying hormone sprays to prevent the preharvest drop of apples. The high-speed coverage, the light dosage required and the chance of repeat applications at important intervals make the method especially suited to this need.

DDT, the new insecticide, and 2,4-D, the new weed killer, as well as many types of insecticides and fungicides, were put through the machine with considerable success. One of the large horse barns at the college was freed of flies with an interior treatment of DDT fog in less than five minutes, and a greenhouse was successfully fogged for insect control in a matter of minutes. Because of the light applications, more frequent treatments may need to be made, it was pointed out.

Dr. Tukey explains that for a long



Fog Machine Used to Apply Insecticide to Apple Trees.

real promise in several respects. It provides rapid coverage, low cost of application, low cost of equipment and high maneuverability.

The small, lightweight equipment, not much larger than a household washing machine, can be carried in a pickup truck. Under normal conditions it will throw a dense cloud of finely atomized spray over a large area as it is moved rapidly through the field or orchard. It will cover in less than one hour the orchard acreage ordinarily sprayed by a 25-gallon-a-minute outfit in one day.

Employing a generator that heats

time orchardists, nurserymen, florists and vegetable growers have searched for a way to reduce or eliminate the large volumes of water required as a base for sprays. "The fog machine may or may not be the final answer," he says, "but future developments are likely to be in this general direction."

THE Finch Floral Farm, South H street, Lakeview, Ore., has been purchased by Frank and Ethel Deter and their son, Gene. The nursery, flower and seed business has been established for twenty years.

Beginning in the Nursery Business

VII. KEEPING RECORDS

By John J. Pinney

Keep records. Don't guess or depend on your memory; know what you are doing.

First of all, start a stock record so that you will know what you have to sell and how much you have sold. This is the sort of record most often neglected by nurserymen, even those who have been in business for many years. We have in mind one nurseryman who does a considerable volume of business, but who is usually in hot water because he never knows for sure what he has bought, has on hand, has sold, has in surplus or is short of. He depends upon his memory, which is not too good. Were it not for the fact that he enjoys a virtual monopoly in his territory he would have pretty tough going.

If you are growing your own stock, keep a record of what you planted; then you will know what percentage survived. You will be surprised to find that the number of merchantable plants harvested compared to the number planted usually represents a low percentage. Then when you hear a brother nurseryman boast about the good stands he got, you can't help being a little skeptical.

A field index is a record of the location of stock growing in the nursery row. It is the record that enables you to find any variety even if the stakes are lost. The simplest method is to number the rows and indicate the variety or varieties in each row. Some nurserymen divide their fields into blocks or areas, giving them names, numbers or letters. This simplifies the keeping of accurate indexes.

It is just as essential to record all purchases. If you use a typewriter for your correspondence, make a carbon copy of your purchase order and file it in a loose-leaf binder alphabetically under the name of the firm from which the purchase is made. Lack of a typewriter is not a serious handicap. Purchase a multiple-copy order book at any stationery store and make carbon copies of the orders placed, filing the copies in the same manner as the typewritten orders.

Stock records need not and should not be complicated. The simplest consists of a book ruled in columns. Divide the book into sections, one section for each group of nursery stock that you handle, such as shrubs, shade trees, evergreens, fruit trees,

roses, etc. Set aside one column for each variety and grade. For example if you handle *Spiraea vanhouttei* in 3 to 4-foot and 2 to 3-foot sizes, write "*Spiraea vanhouttei*, 3 to 4 feet." at the top of one column and "*Spiraea vanhouttei*, 2 to 3 feet." at the top of the other. Immediately beneath the name and grade write the quantity of stock available, including any stock you may have in the nursery and any you have bought. Indicate the field or block in which the stock is growing and the source of purchased stock. A notation of the cost price will be found a great convenience. If there is more than one entry in a column, add them, write the total and draw a line above and below this figure to make it stand out as your supply.

Enter your sales in the spaces below the supply. A good plan is to carry a cumulative total. Let us suppose that the first sale is for ten plants. Write down the figure "10." The next sale might be for eight plants. Instead of writing "8," write "18." Thus the last figure will always represent the total sales on that item. A glance will show how your sales compare with your supply.

In a cash-and-carry business it would not be practical to record each sale as it is made, but it is a good idea to make out a sales slip for each sale. Then you will have the name and address of the customer to add to your mailing list. Your guarantee or nonwarranty can be printed on the back of each slip. Once a day or every few days you can record the sales in your stock record. At the end of the season, count the stock remaining in your sales yard. If your records have been kept with reasonable accuracy, the figures you get by counting the remaining stock should correspond quite closely to the figures obtained by subtracting recorded sales from stock.

In the agency and mail-order businesses it is essential to keep a perpetual inventory. This merely means that you record your sales just as fast as you make them so that you will know at all times how much remains unsold. Oftentimes it is not possible to replenish your supply of some varieties, and you can cut off sales on such items as soon as you have sold your stock. If the supply

on the market is plentiful, you can buy as you need it, without danger of overbuying.

One of the most important uses of a stock record is the basis it supplies for intelligent buying. After stock records have been kept for a few years, they present an accurate picture of the trend in your sales and the volume you can reasonably expect in any variety. You may be surprised to discover that your sales of some varieties are so small it does not pay you to stock them. Do not hesitate to discard such varieties.

Varieties of nursery stock have a vogue just as fashions in clothes or tastes in literature. A variety popular ten years ago may be almost forgotten today. Of course, this change is slow and almost unnoticed. It is most marked in varieties of fruit. Old-established nurseries which handle large quantities of fruit trees and plants may be offering today an assortment almost totally different from the one listed a generation ago. A carefully kept stock record will enable you to discover these trends more quickly and to adjust your production or purchases to meet them.

Any wholesale nurseryman who has salesmen on the road can tell you how careless many of his customers are in making purchases. The conversation between salesman and buyer may go something like this:

Salesman: "How many *Philadelphus virginialis* do you want, Mr. Brown?"

Mr. Brown: "Oh, let's see; I guess I'll take about fifty."

Salesman: "Okay. What size?"

Mr. Brown: "The 2 to 3-foot size. No, make it 18 to 24-inch; they are pretty expensive."

The chances are that Mr. Brown has not the slightest idea whether he needs fifty or 100 or ten *Philadelphus virginialis*, or what grade or grades his customers prefer. It is quite possible he should have thirty of the 2 to 3-foot size and forty of the 18 to 24-inch. His purchases are based on guesses colored a little by his memory of specific sales.

Your stock record not only will make buying a simple matter, but enable you to buy intelligently. No record can eliminate all errors in buying, because isolated sales of unusually large numbers of certain varieties will throw the records out of

PRINCETON NURSERIES



Liquidambar styraciflua
9 to 11 ft., 1½ to 2-in.

One of our specialties. Note excellent root system for this variety.

WM. FLEMER'S SONS, INC., Princeton Nurseries, Princeton, N. J.

A partial list of SHADE TREES available in quantity. Order early and be assured of having a stock of good trees for spring sales.

Acer platanoides, Norway Maple.

(A perfect lot; straight and full headed.)

Unit Price
25 or more

12 to 14 ft., 2 to 2¼-in.	\$4.50
12 to 15 ft., 2¼ to 2½-in.	5.50
13 to 16 ft., 2½ to 3-in.	6.50

Acer plat. columnare, Columnar Norway Maple.

(Ideal for accent or narrow street.)

11 to 13 ft., 1¾ to 2-in.	5.00
12 to 14 ft., 2 to 2½-in.	6.00

Gleditsia triacanthos, Honey Locust.

(Straight trunks, well branched heads.)

8 to 10 ft., 1¼ to 1½-in.	1.75
10 to 12 ft., 1½ to 1¾-in.	2.50

Gleditsia triac. inermis, Thornless Honey Locust.

(The perfect informal tree.)

8 to 10 ft., 1¼ to 1½-in.	2.00
10 to 12 ft., 1½ to 1¾-in.	2.50

Liquidambar styraciflua, Sweet Gum.

(Good root system, extra charge if balled.)

9 to 11 ft., 1½ to 2-in.	3.25
10 to 12 ft., 2 to 2½-in.	4.00

Sorbus aucuparia, European Mt. Ash.

(Straight, well branched specimens.)

12 to 14 ft., 1½ to 2-in.	3.00
13 to 15 ft., 2 to 2½-in.	4.00

For your other requirements in hardy ornamentals, see our **SPRING CATALOG**, which was mailed February 25. Write for a copy if you did not receive one by March 10. We have one of the finest stocks of shade trees in the East.

balance for a season. The same thing happens when your supply is abnormally low for a season. But over a period of years your stock record will give you the most accurate picture of your needs that it is possible to get.

All businessmen are required by federal law to keep books for income tax purposes. In some states the same requirements hold on account of state income taxes. As one just starting in business, you have the choice of the basis on which to keep your books. You may elect the accrual basis, which takes into account your inventory.

Once a year you count the nursery stock you have on hand and evaluate it at what you think is a fair figure. This becomes your inventory. The yearly increase or decrease in the value of your inventory, taken into consideration with the amount of money you have coming to you from your customers and the sums that you owe as shown by your ledger accounts, serves as the basis for de-

FRUIT TREES

AVAILABLE FOR IMMEDIATE SHIPMENT

	Per 100
Large Montmorency Cherry, 11/16-in., 4 ft. and up	\$90.00
Large Montmorency Cherry, 7/16-in., 2½ ft. and up	70.00
Elberta Peach, 7/16-in., 3 to 3½ ft.	45.00
Elberta Peach, 5/16-in., 2 to 3 ft.	35.00

F.O.B. Newark, boxing at cost. Terms: Cash with order, except those with established credit on satisfactory references. All sales subject to stock being unsold upon receipt of orders.

C. W. STUART & CO., INC.

Newark, N. Y.

termining your taxable income. In spite of the fact that it is almost impossible to count and evaluate nursery stock accurately, there are some advantages to the accrual basis, especially for large businesses.

In general, however, the cash basis of operations is to be recommended for the nurseryman. Essentially this consists of recording only your income and expenses. The difference between them represents your net income. Keeping books on the cash basis is a simple matter compared to the accrual basis. Whichever basis you choose, you should feel pretty sure it is the right one for you, because after you have adopted one or the other, you cannot change without permission of the Treasury Department. Usually that is difficult to obtain.

Unless you are experienced in bookkeeping, it is advisable to seek the aid of an accountant in setting up your books. The expense of opening a set of simple books is not great, and the peace of mind that comes with the knowledge that you are doing things right is worth a lot. Make your books as simple as possible so that the task of keeping them will not become distasteful or the cost too high.

There are several state and federal requirements you must take into consideration if you expect to employ any help. Minimum wages and hours, unemployment compensation taxes, social security taxes, federal withholding taxes and workmen's compensation (accident insurance) are some of them. Some of the federal requirements do not apply to businesses employing less than eight workers; others apply to all businesses. A well informed accountant can give you all of this information and help you to avoid expensive mistakes.

The nursery business is in a peculiar position because it is not uniformly defined by various government agencies. The Treasury Department has one definition for it, the Department of Labor another. Nurserymen, with good reason, consider themselves agriculturists. Social security and wage-hour laws do not apply to agriculture, but the agencies charged with the administration of these statutes are constantly endeavoring to classify the nursery business as industrial so that it will come under these laws. There have been numerous court decisions that have helped to clarify the situation, but it is still complicated. For instance, the administrators of the wage-hour law have ruled that a worker in a nursery with eight or more employees

engaged in interstate commerce who picks up a purchased plant on Monday morning and hands it to a customer is engaged in industry and comes under the wage-hour law for the rest of that week. This is true even though he may cultivate corn the rest of the week. Of course, this does not make sense, but that is the way it is. For your own protection you should familiarize yourself with these various rulings.

For your further protection, keep a labor record. This should show the name of the employee, the wages paid and the kind of work performed.

Nearly all states require dealers in nursery stock to purchase a license. If you grow some of your own nursery stock it will have to be inspected by a state department set up especially for this purpose. If it is found free from injurious diseases and insects, it will be certified and you are free to sell it. With the exception of only two or three states, all you need to do to gain the right to ship nursery stock from your state into another is to file a copy of your dealer's license or inspection certificate with the other state and attach a copy to each shipment. For selling in some of the larger cities it may be necessary to secure a vendor's license.

Join your trade associations, state, sectional and national. They render valuable service and are working for your benefit all the time. There are no other organizations espousing your special interests, on the alert against adverse legislation and looking for opportunities to uplift the industry. It is selfish to enjoy these benefits without doing your share. On the other hand, your contributions will make the gains greater for all.

If your town has a chamber of commerce, join it. Enter into civic activities wholeheartedly. Not only is this your duty as a citizen, but if you are looking for selfish motives, it will be good for your business.

Do not overlook the trade papers. Subscribe to them and read them religiously. They afford you the best means of keeping yourself informed on the doings of your fellow nurserymen, and it is through them that the latest developments in the industry are first brought to your attention.

For further suggestions and helps in getting the right start in business, we refer you to two recent publications. One is "Establishing and Operating Your Own Business," industrial series No. 19, United States Department of Commerce, for sale at

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[The End.]

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Plant Notes Here and There

By C. W. Wood

The neglect of gardens during recent years means that most neighborhood nurserymen will be called upon this spring to revamp hardy borders as well as construct new ones. Before commencing work, it will be well to remember that one's clients will expect their borders to be colorful over as long a period as possible. Experienced growers know that color is possible in perennials from the going of the snows until their returning, but it is not possible to have an entire border in a colorful condition over so long a period. A colorful effect is to be had, though, by spreading out the bloomers of the different seasons so that no long stretches of the border are without flowers at any particular time. That may sound like a big undertaking, but a little careful planning with a flowering calendar at one's elbow will solve it.

Bugles for Edging.

In a garden that I visit frequently, a variegated form of *Ajuga reptans* is used with telling effect as an edging along one of the main walks. I realize that many of the bugles have a bad name in gardens because of their spreading habits, but this busy gardener used this plant from choice rather than necessity, claiming that a little time spent on the long ribbon of plants with a spud hoe kept it within bounds. The pretty foliage, together with a long display of pink labiate flowers, certainly makes an effective edging. *A. reptans* with variegated foliage is also available with white flowers, as well as the green leaves and blue flowers of the type.

While on the subject of bugles, may I call your attention to the curiously pretty *A. metallica crispa*, whose fortune is in its curled leaves of metallic sheen? It is a little less invasive than *reptans*; so it can be used in more refined company. But the least invasive of any that I know is the pretty *A. genevensis*, which also has the loveliest blue color in the genus. All that I have grown, except *A. orientalis*, whose downy leaves make it hard to keep on heavy soil and whose vigorous growth, when happy, makes it a problem, are quite hardy here in northern Michigan.

Doronicums.

As the season for doronicums is almost here (some are probably bloom-

ing in warmer sections), it might be well to spend a little time on them. Their value both as garden plants and cut flowers makes them worthy of attention. Happily, they have seen not a little increase in popularity during the past decade; so one is not talking about unknown quantities when they are mentioned.

Few other plants of equal merit for cutting bloom in the open so early in the year. The doronicums are of special value to users of cut flowers (a phase of plant growing now receiving the attention of many neighborhood nurserymen), because their blooming coincides with the time of greatest demand for cut materials. In addition to that, they are easily forced into bloom indoors (another phase that is receiving the attention of many local growers), making them an unusual item in the late winter and early spring markets. Add to the foregoing the fact that the available kinds are of fairly easy culture and one has a really worthy group of plants.

I find, however, that they suffer badly in my light soil when dry weather overtakes them. They receive some compensation from a partly shaded situation, but even then a drought will carry them off if they do not receive sufficient water. In the heavy soil of my old Ohio garden there was little trouble on that account; so I suspect the doronicums

would do little complaining in most sections. In any case, they are best, according to my experience, if divided and reset every third year in fresh rich soil, preferably one containing an abundance of rotted manure. Purchasers should be reminded that the plants become dormant in midsummer; otherwise one is likely to have reports of losses. As reference to lists will give details of the different kinds, space will not be taken for that purpose.

Veronica Filiformis.

There was a time, not many years ago, when *Veronica filiformis* was to be found in most plant lists; today one has to do quite a little searching to find it. Why that is true is difficult for me to understand, because the plant has many good characteristics, along with one bad habit, that endear it to me. In fact, this little Oriental speedwell has most of the good points of the better creeping veronics, and in addition, it possesses some qualities which we find lacking in others. I can easily see from its behavior here that it could make a nuisance of itself in a moist climate through spreading, but it is not likely to bother anyone who has a dry soil. In fact, *V. filiformis* is not at all easy to keep growing here unless it is planted where the hose reaches it. Being a shallow rooter, it cannot withstand much dry

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weather. Yet it does not require a large amount of moisture to make it cover quite wide areas with its tiny leaves on threadlike stems, which are hidden under a canopy of light sky-blue flowers for nearly two months in spring.

Its shallow roots and low stature (the leafage mass is scarcely an inch tall in this light soil) make *V. filiformis* an ideal ground cover for bulb beds, including the crocus species, scilla, chionodoxa, etc., and for sunny or lightly shaded spots in the rock garden away from choice small things. It would not take much ingenuity to find many uses for such a charming thing in the border either. In fact, I know one planting of it in a large bay of a shrub border where it covers at least fifteen square feet with columbines growing through it. *V. filiformis* is fully hardy here and would no doubt be reliable in all except the coldest sections. Propagation is easy from divisions, from cuttings at any season and from seeds.

Oswego Tea.

Judged from any angle, our native bee balm, or Oswego tea, *Monarda didyma*, is a fascinating plant. Its history, since it was introduced to English gardens "before 1752 by Peter Collinson, Esquire," according to Aiton in *Hortus Kewensis*, is inter-

esting, even though it is rather obscure at times. Peter Collinson, who gave many American plants to European gardens, no doubt had this one from our celebrated John Bartram. The latter called it *Monarda oswegensis*, and the botanist Barton con-

nects that name, perhaps with reason, with the Indians' name for the plant, O-Gee-che, meaning fiery or flame flower.

It appears that Collinson's enthusiasm for our plant was generally shared by English gardeners of that

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time. In any event Meehan quotes one old English writer as saying that Oswego tea is "not only a very ornamental plant in gardens, but the scent of the leaves is very refreshing and agreeable to most people, and some are very fond of the tea made with the young leaves."

As its cultivation spread, its fame spread also, and we read much in its praise between the eighteenth and twentieth centuries. Interest in the plant apparently began to wane some time after William Robinson praised it so highly "as a valuable plant to run wild and take care of itself in the woods," gardeners thinking no doubt that it was on the weedy order. Why Oswego tea should be so lightly esteemed by moderns is not easily explained, because it possesses most of the good qualities one looks for in a garden plant—fragrant foliage, showy flowers and an amiable disposition.

Its habitats in nature, which include moist woods and stream banks, suggest what it will like in gardens. It is not to be assumed, however, that the usefulness of Oswego tea is restricted to those situations. The spreading nature of the plant, which incidentally calls for frequent division if it is to maintain a presentable appearance, tells us, too, that it is best in masses. Accordingly, we find that best garden effects are obtained when quite large groups are used. That is especially true of the light-colored varieties of monarda, such as salmonea, with its soft salmon-pink flowers, although the type and Cambridge Scarlet are sufficiently showy to be used in smaller plantings, and the form known as violacea superba is pleasing in large or small numbers in any situation where bright purple can be accommodated.

In the landscape, pinks and scarlets will be found specially effective planted against a dark background, such as an evergreen hedge or in bays in shrub borders. If a small stream is a part of the garden, monardas will be right at home planted in generous clumps along the banks, and if the stream passes through a lightly to quite densely shaded spot, monardas will make a splendid underplanting. In the absence of all these the plants will do well in full sun if moisture is present and will thrive in drier soil than is generally supposed. One should not then expect the luxuriant growth that is a part of moist-soil culture. Monardas grow from eighteen inches in height, which is the usual stature of salmonea under ordinary garden treatment, to the three feet of Cambridge Scarlet,

when it is given plenty of moisture in a humus-filled soil.

Some Thoughts on *Lychnis*.

Although I do not propose a thorough discussion of the much-neglected genus *lychnis*, I should like to call attention to a few worthy numbers. If one does not object to the flaming scarlet of the Maltese cross, *Lychnis chalcedonia*, or the near-magenta of the German catchfly, *L. viscaria* (and few will if the plants are given the correct surroundings), he will find much excellent material in the genus, including plants of an easy-going disposition and a willingness to give much in return for little. He will find, among others, that favorite old-bedder, the mullein pink, *L. coronaria*, with its leaves like the dusty miller and large crimson flowers on stems to two feet in height; ragged robin, *L. flosculi*, of about the same height and with rosy-purple flowers, each petal deeply cut, throughout most of the summer; Maltese cross, *L. chalcedonica*, with a height of three feet under high culture. The last is then a most spectacular plant in June, with its large clusters of crimson flowers or, if one prefers, of rose, pink or white flowers in modern varieties.

It is perhaps unnecessary to take up space to tell of the virtues of several other kinds of *lychnis* which have enjoyed popularity in gardens, but I should like to devote a little space to the double form of *L. viscaria* and the little-known South American, *L. presli*. I realize that some gardeners object to *L. viscaria splendens flore-pleno*, because of its

color. And I suspect that they have never seen the plant used in ways to bring out its charms, or perhaps it would be better to say to subdue its somewhat harsh color. If you would see this effect, try *flore-pleno* in association with its white form *alba*, *Campanula carpatia alba*, pale blue Chinese delphiniums and others of these shades with a concurrent flowering period and habits which will not obscure the 15-inch growths of the *lychnis*. It is worth trying at least and may make another friend for a good though much-maligned plant.

Little need be said about the other, *L. presli*, except that it is hardy, despite its southern origin. It has rose-colored or white flowers about an inch across, in clusters, in June and later. If one objects to the rosy color of the type, let him confine himself to the white ones, and I am sure that he will find it a most useful addition to the early summer border.

The Rocky Mountain Columbine.

Mention of the Rocky mountain columbine and its short life some time ago in this column brought several requests for more on the subject. It is a pleasant topic in many ways, for the species contains the utmost in loveliness among the columbines, where spurs are longest, airy grace is intensified and beauty is made manifest in every way. That could be said of American columbines in general and—except for the term "longest spurs," which probably is correctly applied to *Aquilegia longissima*—is particularly applicable to our present plant, *A. coerulea*. Here we find grace in leaf, stem and flower.

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EVERBEARING VARIETIES:				
Gem, Lucky Strike, Mastodon, Evermore (Minn. 1166).....	.75	2.50	5.00	18.00
Gemsata.....	1.00	3.25	7.00	25.00

No extra charge is made for the package or packing on Strawberry plant orders. Prices quoted are for delivery as wanted during the Spring shipping season, ending June 1, 1946, and apply as follows:

- 25 to 75 plants of one variety at the 25 rate.
- 75 to 225 plants of one variety at the 100 rate.
- 225 to 475 plants of one variety at the 250 rate.
- 475 plants or more of one variety at the 1000 rate.

ASPARAGUS ROOTS

Our Asparagus roots have made a particularly good growth this season. We are the largest growers of Asparagus roots in the country. Write for special prices on large numbers.

MARY WASHINGTON	Per	Per	Per	Per
3-year, No. 1 grade.....	25	100	250	1000
2-year, No. 1 grade.....	\$1.25	\$4.00	\$8.75	\$30.00
1-year, No. 1 grade.....	.75	2.50	5.25	18.00

All quotations are F.O.B. Selbyville, subject to stock being sold upon receipt of order. Free packing for cash with order. Please use your printed stationery when requesting wholesale prices.

BUNTINGS' NURSERIES, INC.

Box 3

SELBYVILLE, DELAWARE

The blooms are big blue and white beauties with long spreading spurs. I have grown plants up to two feet in height in a leafy soil in light shade, although it must be admitted that this columbine is never permanent here, seldom lasting over two or three years, even in the slightly acid soil which it apparently needs. My experience gives little hope to the gardener who is working to make the plant a permanent feature in the east, but anything so lovely is worth frequent renewal. Mrs. Nicholls is a glorified coerulea, if such a thing is possible, possessing a better constitution, greater stature (thirty inches or taller), larger flowers and usually longer spurs. There are other color selections and some hybrids with the sturdy European *A. vulgaris*; so one has a wide range of choice.

PLANTING PRIMER.

Eighteen years ago Franc P. Daniels Nursery, Long Lake, Minn., introduced a mythical member of his firm named Danny Do-it. Danny is co-author with Mr. Daniels of "Danny's Pewee Primer of Horticulture," a clever little booklet which Mr. Daniels gives to his customers to aid them with their gardening. In 32 pages, measuring only 2 3/4 x 4 inches, this helpful booklet gives concise information on planting, culture and pruning of small fruits, fruit trees, shade trees, evergreens and perennials, as well as pointers on insect and disease control, landscaping and lawn care.

PLANTING GUIDE.

Because Tuttle Bros. Nurseries, Pasadena, Cal., believe that "the right way of installing plants is not only easier than the wrong way, but really pays dividends in joy, contentment and happiness," L. A. and Harry Tuttle have compiled a helpful little booklet for their customers entitled "When and How to Plant."

Catalogs and price lists have told their customers what plants were available in the nurseries and where they should be planted, but nothing about how. It was assumed that the latter information would be secured at the nursery. But in many cases this assumption was not correct. In addition, it was found that customers took up a great deal of the salesmen's time in asking questions about planting and plant care. Thus the booklet serves a twofold purpose in that it helps both the customer and the company.

The 12-page booklet contains notes on pest control, irrigation, fertilization and general planting instruc-

SURPLUS LIST

We offer for immediate delivery the following list of Flowering Shrubs, Forest and Shade Trees and Vines in the following grades and varieties. All stock is of first-class quality and up to grade. Orders accepted subject to any injury or loss from causes beyond our control. We are careful to keep varieties labeled true to name and will replace on proper proof any stock that may prove otherwise, free of charge, or refund the purchase price, but it is mutually agreed that we shall not be liable for any amount greater than the purchase price paid us.

No claims will be considered unless made in writing within ten days after receipt of goods.

TERMS AND CONDITIONS: Three per cent (3%) discount and free packing for cash with order; two per cent (2%) ten days, or 30 days net from date of invoice. Open accounts to those with approved credit ratings. Twenty-five per cent (25%) cash required before shipment on C.O.D. orders. Packing charges at cost on open account and C.O.D. orders.

HARDY DECIDUOUS FLOWERING SHRUBS

	Per 10	Per 100	Per 1000
ARONIA MELANOCARPA. Black Chokeberry.			
2000 12 to 18 ins., L. O. div.	\$0.20	\$1.25	\$10.00
3000 18 to 24 ins., L. O. div.	.25	1.50	12.00
FORSYTHIA FORTUNEI. Fortune Forsythia.			
FORSYTHIA INTERMEDIA. Border Forsythia.			
10,000 6 to 12 ins., C.	.30	2.50	20.00
4000 12 to 18 ins., C.	.35	3.00	25.00
LIGUSTRUM AMURENSE. Amur North Privet.			
25,000 6 to 15 ins., L. O.	.30	2.50	20.00
15,000 6 to 12 ins., 2 br.	.45	4.00	30.00
15,000 12 to 18 ins., 2 br.	.60	5.00	45.00
8000 12 to 18 ins., 3 br.	.70	6.00	55.00
LIGUSTRUM IBOLIM. Ibolium Privet.			
5000 6 to 15 ins., L. O.	.30	2.50	20.00
10,000 6 to 12 ins., 2 br.	.45	4.00	30.00
5000 12 to 18 ins., 2 br.	.60	5.00	45.00
3000 18 to 24 ins., 2 br.	.70	6.00	55.00
LIGUSTRUM OVALIFOLIUM. California Privet.			
10,000 6 to 12 ins., 2 br.	.35	2.50	20.00
8000 12 to 18 ins., 2 br.	.45	4.00	30.00
5000 18 to 24 ins., 2 br.	.55	5.00	40.00
LIGUSTRUM SINENSE. South Privet.			
10,000 6 to 12 ins., S.	.20	1.00	8.00
6,000 12 to 18 ins., S.	.25	1.50	12.00
4000 18 to 24 ins., S.	.30	2.00	15.00
4000 18 to 24 ins., Br. S.	.45	4.00	30.00
2000 2 to 3 ft., Br. S.	.60	5.00	40.00
500 6 to 12 ins., Tr.	.30	2.50	20.00
2000 12 to 18 ins., Tr.	.50	4.50	40.00
LONICERA FRAGRANTISSIMA. Winter Honeysuckle.			
1000 6 to 12 ins., C.	.40	3.00	25.00
1500 12 to 18 ins., 2 br. up.	.60	5.00	45.00
SPIRAEA VANHOUTTEI.			
10,000 6 to 12 ins., C.	.40	3.00	25.00
10,000 12 to 18 ins., C.	.50	4.00	35.00
5000 18 to 24 ins., C.	.60	5.00	45.00

FOREST and SHADE TREES

	Per 10	Per 100	Per 1000
ACER DASYCARPUM. Silver Maple.			
7000 6 to 12 ins., S.	..	\$1.00	\$ 8.00
5000 12 to 18 ins., S.	..	\$0.15	1.25
2000 18 to 24 ins., S.	..	.20	1.50
CERCIS CANADENSIS. American Redbud.			
10,000 4 to 6 ins., S.	..	1.50	10.00
FRAXINUS LANCEOLATA. Green Ash.			
3000 6 to 12 ins., S.	..	.60	5.00
2000 2 to 3 ft., S.	..	.25	1.50
2000 2 to 4 ft., S.	..	.30	2.00
LIRIODENDRON TULIPIFERA. Tulip Tree.			
5000 6 to 12 ins., S.	..	.20	1.25
2000 12 to 18 ins., S.	..	.25	1.50
OXYDENDRUM ARBOREUM. Sourwood.			
3000 6 to 12 ins., S.	..	.20	1.25
2000 12 to 18 ins., S.	..	.25	1.50
1000 18 to 24 ins., S.	..	.30	2.00
ROBINIA PSEUDOACACIA. Black Locust.			
15,000 6 to 12 ins., S.	..	.75	6.00
ULMUS AMERICANA. American Elm.			
10,000 6 to 12 ins., S.	..	.75	6.00
MALUS. Flowering Crab Apple, 1-yr. grafts, mostly whips.			
6 to 12 ins.			
Per 10.....	\$1.00	\$ 1.25	\$ 2.00
Per 100.....	8.00	10.00	15.00
Per 1000.....			
Arnold's .....	..	58	150
Eleyl .....	..	44	275
Red Silver	45	100	447
3 to 4 ft.			
Per 10.....	\$3.00	\$ 3.00	\$ 3.50
Per 100.....	25.00	30.00	30.00
Per 1000.....			
4 to 5 ft.			
Per 10.....	\$7.00	\$65.00	\$65.00
Per 100.....	70	6.00	55.00
Per 1000.....	.60	5.00	40.00

VINES and CREEPERS

	Per 10	Per 100	Per 1000
LONICERA JAPONICA HALLIANA. Hall's Japanese Honeysuckle.			
2000 2-yr. Tr., No. 1.....	\$0.90	\$7.00	\$65.00
5000 2-yr. Tr., No. 2.....	.70	6.00	55.00
2000 2-yr. Tr., No. 3.....	.60	5.00	40.00

FOREST NURSERY CO., INC.

J. R. Boyd, President Mc Minnville, Tenn.

tions. Specific directions are given on when to plant, the distance apart the plants should be, how to plant, sun protection, irrigation, fertilization, pest control, pruning, mulching and pollenization for handling citrus trees, deciduous fruit and nut trees,

berries, roses, azaleas, camellias and ferns.

CARL SJULIN has sold his interests in the Inter-State Nurseries, Hamburg, Ia., to his two brothers, Dave and Les.

National Plant Board

When the National Plant Board met February 19 and 20 at Washington, D. C., to discuss matters pertaining to regulatory work, there was so much discussion about quarantine 37 that the board took action in the form of several resolutions to further a program designed to protect American agriculture and horticulture from the invasion of more insects and diseases from foreign countries.

All officers were elected for another term as follows: Dr. A. B. Buchholz, Albany, N. Y., chairman; B. P. Livingston, Montgomery, Ala., vice-chairman, and C. A. Boyer, Lansing, Mich., secretary-treasurer.

Recognizing the need for early detection and suppression of insect pests and plant diseases and believing that the present program of the United States Department of Agriculture is inadequately investigating these problems, the National Plant Board adopted the following resolutions:

"Therefore, be it resolved, that the National Plant Board go on record as favoring the initiation of a program, by the United States Department of Agriculture, for the purpose of acquiring information and knowledge of newly introduced and of potential insect and plant disease pests of limited distribution; that adequate funds be made available for the purpose of carrying out this work; that these investigations be extended to foreign countries when and where advisable."

Favoring a needed revision of the plant quarantine act of 1912, the National Plant Board approved in principle the following proposed new section of the plant quarantine act of 1912:

"Section 16. In order to protect American agriculture, horticulture and forestry from injurious insect pests and plant diseases, new or not widely prevalent or distributed within and throughout the United States, the Secretary of Agriculture is authorized to limit entry of nursery stock from foreign countries to that needed for propagation purposes, under such rules and regulations as he may deem necessary, including the requirement, if necessary, that such stock be grown under postentry quarantine or under the supervision of the United States Department of Agriculture for the purpose of determining whether such stock may be infested or infected with plant pests not discernible by a port of

entry inspection; and provided that if such imported nursery stock is found to be infested or infected with such plant pests he is authorized to prescribe such remedial measures as he may deem necessary to prevent the spread thereof."

The board also favored a resolution adopted February 12 at the meeting of the commissioners of agriculture of the southern states and the Southern Plant Board urging that increased funds be made available in appropriations provided by Congress for the bureau of entomology and plant quarantine for the enforcement of quarantine activities, for the development of treatment for imported plants and plant products and for making pest and disease surveys in foreign countries. All horticultural interests are to be notified of the gravity of the situation with respect to further infestations by foreign pests.

Because of the world shortage of wheat and other small grains, it was

urged that the federal program for the more adequate removal of barberry be expanded by a minimum increase of the budget of \$200,000. An increase of not less than \$125,000 above the 1947 budget was recommended for Japanese beetle inspection, while an increase of \$400,000 was recommended to provide for inspection and control of gypsy moth.

Expanding commerce, especially by air, provides such increased opportunities for the introduction of new pests that an additional \$200,000 is recommended by the board for protecting agriculture from foreign pests.

Congress will be urged to provide all the funds requested in the budget estimate for 1947 for continuing the control of sweet potato weevil, phony peach and peach mosaic diseases and pink bollworm, with the recommendation that \$40,000 additional be granted for peach diseases.

C. BURTON FOX states that he has sold his interest in the Ozarks Plant Farms, Inc., Springfield, Mo., and is no longer identified with the corporation in any capacity.

THE NORTHWEST NURSERY COMPANY

E. C. Hilborn, President

offers

A few new **Rosy Bloom Crab Apples** from the Dominion Station, at Morden.

also

Raspberries—Write for prices.

LATHAM — CHIEF — RUDDY
(Ruddy developed by Dr. Yeager)

THE NORTHWEST NURSERY CO.

Valley City, North Dakota

FOR IMMEDIATE SHIPMENT

The following varieties and grades of well grown stock are available for immediate shipment:

Ampelopsis tricuspidata (veitchi) (Boston Ivy)	Per 100	
2-yr. trans., 2 to 3 ft.	\$45.00	
2-yr. trans., 3 to 4 ft.	\$55.00	
Clematis paniculata (Sweet Autumn Clematis)	Per 100	Per 1000
2-yr. medium	\$20.00	\$180.00
2-yr. No. 1	25.00	220.00
Ligustrum amurense (Amur River North Privet)	Per 1000	
12 to 18 ins., 2-yr.	\$70.00	
18 to 24 ins., 2-yr.	90.00	
Ligustrum ibolium (Ibolium Privet)	Per 1000	
18 to 24 ins., 2-yr.	\$70.00	

LOVETT'S NURSERY, INC.

Little Silver, N. J.

COVER ILLUSTRATION.

Malus Soulandi.

The flowering crab apples have been referred to on several occasions as being among the best of all the small flowering trees. In some sections of the midwest, they could well head the list. Many of the species are common in the trade. *Malus soulandi*, however, is not.

According to records, *Malus soulandi* had its origin before 1868. In spite of its early origin, it has not made a name for itself in the trade. Supposedly a hybrid between *Malus pumila* and *Malus ioensis*, it is occasionally found growing wild from Minnesota to Texas.

Of upright, spreading habit of growth, it becomes a tree of about thirty feet at maturity. The branches are well clothed with foliage. The leaves are quite large and broad, roughened, and usually rounded at the apex. While they are usually toothed, the leaves may be slightly lobed, especially on vigorous shoots.

As with most of the flowering crab apples, the outstanding characteristic is its flowering habit. The flowers are quite large, single, pink in bud and white when fully open. They are one and one-half to one and three-quarters inches in diameter and are borne on short pedicels.

The fruits are large, often up to two inches across and yellowish-green in color. It is not outstanding in fruit.

Malus soulandi is hardy and adaptable to the average run of garden soils. It can be used in either sun or partial shade. While I have not had an opportunity to check this point nor am I able to find any reference to it in a brief review of the literature, it is probable that this hybrid is susceptible to scab and cedar-apple rust, as is typical of the native crab apples.

It is doubtful if *Malus soulandi* will be used as extensively as many of the other species, varieties and forms of the flowering crab apples, but it will find a limited use as a small tree for specimen or border planting.

L. C. C.

THE Pine City Gardens, Inc., Pine City, Minn., is being operated as the White-Millwood Gardens by Roy White and his son-in-law, Sylvan Millwood. Mr. Millwood is a veteran with four years' service in Africa, Italy, France and Germany. Under the new management the experimental work done at the gardens will be continued and increased.

GRAPEVINES and BERRY PLANTS**GRAPES**

Per 10 Per 100

Caco, Red		
2-year, No. 1	\$3.00	\$25.00
1-year, No. 1	2.50	20.00
Catawba, Purplish-red		
2-year, No. 1	2.40	20.00
1-year, No. 1	1.80	15.00
1-year, No. 2	1.20	10.00
Concord, Black		
Per 1000		
2-year, No. 1	\$125.00	1.80 15.00
1-year, No. 1	90.00	1.30 11.00
1-year, No. 2	65.00	.85 7.50
Delaware, Light red		
2-year, No. 1	2.40	20.00
1-year, No. 2	1.80	15.00
Extra, Blue-black		
2-year, No. 1	2.40	20.00
1-year, No. 1	1.80	15.00
Fredonia, Black		
2-year, No. 1	2.10	18.00
1-year, No. 1	1.70	14.00
1-year, No. 2	1.00	8.00
Golden Muscat, Golden-yellow		
2-year, No. 1	6.50	60.00
1-year, No. 1	5.50	40.00
1-year, No. 2	3.00	25.00
Moore's Early, Black		
2-year, No. 1	2.10	18.00
1-year, No. 1	1.70	14.00
Niagara, Yellowish-green		
2-year, No. 1	2.10	18.00
1-year, No. 1	1.70	14.00
1-year, No. 2	1.00	8.00
Seedless Concord		
1-year, No. 1	5.00	45.00
Worden, Purplish-black		
1-year, No. 2	1.00	8.00

CURRENTS

Per 10 Per 100

CHERRY		
2-year, No. 1	\$2.40	\$20.00
1-year, No. 1	1.80	15.00
FAY'S PROLIFIC		
2-year, No. 1	2.40	20.00
1-year, No. 1	1.80	15.00
RED LAKE		
2-year, No. 1	2.90	25.00
1-year, No. 1	2.40	20.00
WILDER		
2-year, No. 1	2.40	20.00
1-year, No. 1	1.80	15.00

RASPBERRIES

Per 100 Per 1000

CHIEF, Red		
No. 1 suckers	\$8.50	\$75.00
CUMBERLAND, Black		
No. 1 tips	6.00	50.00
LATHAM, Red		
No. 1 suckers	8.50	75.00
SUNRISE, Red		
No. 1 suckers	8.50	75.00
WASHINGTON, Red		
No. 1 suckers	7.00	60.00

BLACKBERRIES

Root-cutting plants

Per 100 Per 1000

ALFRED BLACKBERRY		
No. 1	\$5.00	\$45.00
EARLY HARVEST BLACKBERRY		
No. 1	5.00	45.00
No. 2	3.50	30.00

WILLIS NURSERY CO.
OTTAWA, KANSAS**1,000,000 NORWAY SPRUCE**

2-year, 2 to 5 ins., \$20.00 per 1000

1,000,000 COLORADO BLUE SPRUCE

3-year, 2 to 6 ins., \$20.00 per 1000

Finest Stock in the Country—We grow 14,000,000 trees a year—

Write Today for Complete Stock List and Special Christmas Tree Growers' Guide

MUSSER FORESTS, INC.**Indiana, Pa.**

Trade Meetings

COLORADO NURSERYMEN MEET AT DENVER.

The Colorado Nurserymen's Association and the Colorado chapter of the American Association of Nurserymen held a joint meeting March 8 at Marshall's Nurseries, Denver. Scott Wilmore, Colorado A.A.N. delegate, reported on the discussions held at the A.A.N. meeting at Chicago, especially about the proposed publicity plan. The committee appointed to promote an employee-training program reported that as yet there had been no great demand for such a program at the state college and so none had been started. Several members said they were using returned veterans under the on-the-job training plan.

After failure to find anyone to accept the nominations for president or secretary, the old officers were re-elected. So, Maurice Marshall will be president of the joint associations another year and Mary Maroney, secretary.

Most of the rest of the meeting was taken up with a discussion of Colorado nurserymen's greatest problem, the difficulty caused by gardeners' buying plants from beautifully illustrated catalogs from other parts of the country where conditions are radically different from ours. The Rocky mountain and plains area has such difficult and different growing conditions from other parts of the country that many plants are not worth planting here; yet few, if any, catalogs warn people of the possibility of failure here. The Rocky mountain and plains region is a large area with a considerable population; yet it has been almost ignored horticulturally. The members present recommended that the attention of our national secretary be called to this condition and some effort made to advise some of the more prominent firms of our conditions and problems. In the meantime, Colorado nurserymen are backing the Colorado Forestry and Horticulture Association in its efforts to publish horticultural information adapted to these climatic conditions. It was thought that information put out by such an impartial association through its bulletin, the Green Thumb, would be of great benefit to both the buyer and the seller.

The program ended with the showing of two fine films on forestry and shelter belt planting by Everett Lee, new state forester, and his assistant, Mr. Wonders. George W. Kelly.

LONG ISLAND GROUP MEETS.

A meeting of the Long Island Nurserymen's Association was held March 5, at the La Grange hotel, Babylon, N. Y. Members represented included Bagatelle Nursery, Bulk's Nurseries, Anderson Nursery, Dalsimer Florist, Inc.; Eureka Nursery, Fiel's Lynbrook Nursery, Frankenhach & Sons, Otto Grumbach's Nursery, Hart's Nurseries, Anton Hren Nursery, Lake Grove Nurseries, Lewis & Valentine Nurseries, Eugene Henri Mouquin, Inc.; Northport Nurseries, Oak Park Nurseries, G. Clifton Sammis, Leo Schrakamp Nurseries, Sweet Hollow Nursery, Syosset Nurseries, Triangle Nursery, Van Kleef Nurseries, Visser's Nurseries, Wayside Nurseries, John Wevers Nurseries and De Haans Gardens.

The meeting was presided over by President Scherer, of Northport Nurseries. Among the topics of current interest discussed were the planting of certain highways from New York city to Montauk Point and the source of supply for plants to be used for living memorials in various Long Island communities in memory of those who made the supreme sacrifice in World War II.

There was discussion in regard to an advertising campaign to make the public more conscious of the Long Island Nurserymen's Association and the reputable people who are its members. The publicity would ex-

pose peddlers selling plants not true to name and of poor quality.

Guest speakers were Dr. A. M. S. Pridham and Dr. Fossum of the department of floriculture and ornamental horticulture of Cornell University, Ithaca. They spoke of the potency of the nursery business throughout the state and the good work that had been done by nurserymen during the war years.

Charles R. Mouquin, Sec'y.

MAIL ORDER GROUP MEETS.

The third of the local winter meetings of the National Mail Order Nurserymen's Association was held Friday evening, March 8, at the New Buffalo cafe, New Buffalo, Mich. Forty interested members and guests were present and enjoyed an excellent chicken dinner provided by the hosts, M. J. Hunziker & Sons, Keith Plant Nursery, Byrd's Nursery, South Michigan Nursery, Dunham's Grand Mere Nurseries and Westhauser Nurseries.

President Clifford Emlong, of the Emlong Nurseries, Inc., presided and presented the three speakers. Prof. R. L. Guile, of the chemistry department of Michigan State College, told about plastics and their applications to nursery uses. Mr. McHugh,

BERRY PLANTS

RASPBERRY	Per 100	Per 1000
Newburgh, red ..	\$ 7.00	\$ 60.00
Sunrise, early red ..	6.00	50.00
Taylor, red	7.00	60.00
BOYSENBERRY		
Transplants	10.00	80.00
Thornless Tips ..	7.50	65.00
YOUNGBERRY		
Tips	5.50	45.00
Transplants	7.50	65.00
SAGE, English broad-leaved		
2-yr., field-grown ..	12.00	100.00
1-yr., field-grown ..	7.50	65.00
HORSE-RADISH (Maliner Kren)		
Root Cuttings	2.00	15.00
Whole Roots	4.00	35.00
DWARF JUNE BERRY		
12 to 24 ins.	15.00	125.00

ORNAMENTAL VINES

Celastrus Orbiculata		
No. 1	\$20.00	\$175.00
Euonymus Carrierei		
Hvy., 2-yr., 15 to 18 ins.	25.00	200.00
Euonymus Coloratus		
2-yr.	20.00	175.00
Rooted Layers	5.00	35.00

SWEET CHERRY

August Supreme	Per 100
9/16-in. cal., 4 ft. up.	\$100.00
7/16-in. cal., 3 to 4 ft.	75.00
Oka Cherry	
9/16-in. cal., 4 ft. up.	100.00

Send for complete trade list.

W. N. SCARFF'S SONS

New Carlisle, Ohio

5000 JUNIPERS, B&B

F.O.B. trucks at nursery.

Pfitzeriana, 2 to 3 ft. and 3 to 4 ft.
Hibernica, 3 to 4 ft. and 4 to 5 ft.
Ashford, 2 to 3 ft.
Andorra, 1 1/2 ft.
Hill's Golden Pfitzer, 2 to 3 ft.

One block of 2000 assorted evergreens at Ashford, N. C. A-1 condition; half in B&B sizes. Close to quick transportation, freight or highway.

HUMPHREYS LANDSCAPE SERVICE

Mt. Sterling, Ky.

SPRING SURPLUS

	Each
150 Enkianthus Camp., 5 to 7 ft. \$ 4.00	
250 Azalea Knaempferi, 2 to 3 ft. 2.25	
250 Azalea Knaempferi, 3 to 4 ft. 3.00	
25 Ginkgo, 3 to 9 ft. 2.50	
20 Black Walnut, 10 to 12 ft. 3.00	
20 Butternut, 10 to 12 ft. 3.00	
100 Red Oak, 12 to 14 ft. 3.25	

50 at 100 rate.

BRIMFIELD GARDENS NURSERY

245 Brimfield Rd., Wethersfield, Conn.

of the Chicago office of the agricultural chemistry division of the Dow Chemical Co., told about the research that is being done to provide new and better controls for diseases, insects and weeds. Prof. Franklin Sherman, of the entomology department of Michigan State College, talked on the advantages and the possible disadvantages of the new insecticide DDT.

G. W. R. Baldwin.

PLAN GEORGIA MEETING.

The annual meeting of the Georgia State Nurserymen's Association will be held at the University of Georgia, Athens, May 6, the department of landscape architecture acting as host M. Aubrey Owen, president of the organization, has secured the cooperation of Prof. Hubert B. Owens to handle the program and arrangements for the meeting, of which announcement will appear later.

OBITUARY.

Lloyd Stickney Stark.

Lieut. Comdr. Lloyd Stickney Stark, son of Lloyd C. Stark, Louisiana, Mo., former governor of Missouri and chairman of the board of Stark Bros. Nurseries & Orchards Co., Louisiana, Mo., was killed March 19 when an army C-47 plane crashed, with twenty-six victims, in the snow-covered Sierras near Truckee, Cal.

Samuel Shore.

Samuel Shore, vice-president of J. Shore & Co., Inc., Chelsea, Mass., manufacturers of burlap, died February 19. He was 44 years old.

E. W. Hartman.

E. W. Hartman, owner of Cashtown Nurseries, Cashtown, Pa., died February 20. The business will continue to be operated by the sons, C. E. Hartman and L. C. Hartman.

THE nursery owned by John B. Baxter, at Laurens, S. C., has been moved to Newberry, S. C.

PURCHASE has been made of the S. D. Bash Seed Store, Indianapolis, Ind., by the Pottenger Nursery & Landscape Co., of the same city. Richard Pottenger, who recently returned to civilian life after more than four years in the army, will be manager of the store. It will carry nursery stock in addition to the lines of seeds and fertilizers formerly sold. The firm will also give attention to landscaping and lawn service.

PEAR CONTRACTS 1946-47

Pear has been an extremely scarce item the past few years, and with the large backlog of orders now on file throughout the industry, we anticipate another shortage this year.

We have just finished grafting 100,000 pears, predominantly **Kieffer**, and we would like to contract a portion of this planting. This planting is on good ground and in good hands, and we should get maximum growth.

If interested write for contract details.

We will still accept a few more **Peach, Plum** and **Apricot** contracts for this season.

FARMERS WHOLESALE NURSERY

Paul Patterson, Owner

P. O. Box 65

Smithville, Tenn.

BAGATELLE NURSERY

Growers of Azaleas, Beeches, Cornus,

Enkianthus, Evergreens,

Hybrid Lilacs, Ilex Crenata,

Kalmia, Malus, Prunus,

Rhododendrons and Shade Trees

Catalog on request.

P. O. Huntington Station, N. Y.

LINING-OUT STOCK OUR SPECIALTY....

Shade Tree Whips . . . a
timely finished product saving
2 to 4 yrs.' growing effort
. . . excellent variety.

A very complete line of
ORNAMENTAL TREES, SHRUBS
and EVERGREEN SHRUBS,
including many scarce items.

THOMAS B. MEEHAN CO.
DRESHER, PA.

TRUE DWARF BOXWOOD

Buxus Suffruticosa Per 10
12 to 16 in., B&B.....\$11.00
16 to 18 in., B&B.....22.00

EASTERN SHORE NURSERIES, INC.
Easton, Md.

ORNAMENTALS

TREES SHRUBS
EVERGREENS

Wholesale growers of a
general assortment for
the best Landscape Plantings

BRYANT'S NURSERIES
PRINCETON ILLINOIS

NORTHERN COLLECTED EVERGREENS

FERNS PLANTS
SHRUBS

WILLIAM CROSBY HORSFORD
Charlotte, Vermont

AMERICAN ASSOCIATION OF NURSEYMEN

RICHARD P. WHITE,
EXECUTIVE SECRETARY



636 SOUTHERN BLDG.,
WASHINGTON, D. C.

SPECIAL TRAINS TO MIAMI.

Returning from ten days at Miami, Fla., William J. Smart, A. A. N. transportation chairman, recently completed arrangements with railroad officials for the two special trains which are to carry members to the convention of the American Association of Nurserymen at the southern resort center next July. Complete itinerary will be mailed to members about April 15.

The eastern special train will leave New York city during the day July 12 and will arrive at Miami early Sunday morning, July 14.

The Chicago train will leave at 2 p. m., July 12, making the following stops: Logansport, Indianapolis, Louisville, Nashville, Birmingham, Montgomery, Jacksonville and Miami.

Ohio nurserymen will be able to leave Cincinnati at 5:50 p. m., July 12, on a special car or cars to be joined to the special train at Louisville. A special car is planned to leave Nashville, enabling Tennessee and Alabama nurserymen to board the special train at Nashville or, if necessary, at Decatur or Athens, Ga.

The two trains will arrive at Jacksonville, Fla., at 8:30 p. m., July 13, and, on arrival of the eastern train, members will be able to spend about two hours together there. Departure from Jacksonville is scheduled for 10 p. m.

Both trains will arrive Sunday morning at Miami after breakfast, and busses will be ready to transport the passengers to the hotels. These busses will transport the guests back to the trains for the return trip. Homebound trains will leave Miami at midnight Thursday, July 18. The Chicago train will arrive at its destination at noon Saturday, July 20.

Fares to be quoted in the itinerary will include round-trip Pullman accommodations as desired, all meals, tips to dining car waiters and Pullman porters and transportation to hotels.

When in Miami Mr. Smart contacted two beautiful fishing cruisers, up to date in every respect, even having ship-to-shore telephones. He has complete information for the benefit of nurserymen who are interested in fishing down there.

ON-THE-JOB TRAINING.

Both the servicemen's readjustment act of 1944, generally known as the GI bill of rights, and the act for rehabilitation and education of disabled veterans provide for on-the-job and apprentice training. Several nursery firms have taken advantage of the on-the-job training provisions of the laws. Procedure to be followed is described in a recent news-letter to members of the American Association of Nurserymen.

The first step to take in securing veterans for on-the-job training is to have your firm approved as qualified and as equipped to provide on-the-job training. The state department of education in most cases is the approving state agency, and the application should be made to this state agency.

The veteran seeking on-the-job training applies to the nearest office of the Veterans' Administration for a "certificate of eligibility and entitlement." Once approved as being qualified and equipped to provide on-the-job training, you may accept any veteran for training who has a certificate of eligibility and entitlement. When the veteran begins training, his certificate of eligibility is returned (by the employer) to the nearest regional office of the Veterans' Administration, with the following information: (1) Date of commencement of training; (2) the position or job for which he is being trained; (3) the length of time for which training is to be provided; (4) monthly salary or wages to be paid to the trainee; (5) the going salary or wage paid by you to a trained employee holding a job similar to that for which the trainee is being trained. Once a month you, as the employer, are required to furnish a report to the Veterans' Administration as to the attendance, conduct and progress of the trainee, and a statement of all wages or compensation paid to the trainee during the previous month.

The Veterans' Administration is authorized to make up the difference between what you pay the trainee and the normal wage or salary which you pay your employees in similar jobs. The Veterans' Administration is authorized to pay up to \$65 per month to a single man and \$90 per month to a married man.

Lining-Out Stock

Liners from Field Beds	Per 100	Per 1000
<i>Taxus capitata</i> , 5-yr. sdig., XX, 5 to 8 ins.	\$40.00	\$400.00
Canadian Hemlock, 4-yr., XX, 6 to 9 ins.	18.00	170.00
<i>Daphne Mesereum</i> , sdig., 3-yr., X, 5 to 8 ins.	10.00	90.00
<i>Viburnum Opulus Nanum</i> , 3-yr., XX, 6 to 9 ins.	35.00	325.00
Regel Privet, 2-yr., X, 12 to 18 ins.	5.50	50.00
<i>Euonymus americanus</i> , 2-yr. sdig., 4 to 8 ins.	8.00	80.00
<i>Euonymus coloratus</i> , 2-yr., X, 8 to 12 ins.	12.00	120.00
Chinese Elm, sdig., 3 to 6 ins.	3.00	25.00
American Elm, 2-yr., X, 2 to 3 ft.	8.00	75.00
<i>Pachysandra terminalis</i> , 2-yr.	6.00	50.00
Liners, Rooted Cuttings and Seedlings.		
<i>Hyb. Rhododendron</i> , 1-yr., X, 14.00	130.00	
<i>Azalea mollis</i> , 1-yr., X, 10.00	90.00	
<i>Euonymus fortunei</i> , R.C.	8.00	70.00
<i>Euonymus carrierei</i> , R.C.	9.00	80.00
<i>Euonymus coloratus</i> , R.C.	8.00	70.00

Regarding Liners: 300 plants of a kind at 1000 rate. 50 plants of a kind at 100 rate. Less than 50 plants of a kind add 10 per cent to 100 rate.

Terms: Cash with order; no C.O.D. April and May delivery. Packing and boxing at cost to us, additional. Jap. beetle certified. Certificate upon request.



Azalea Mollis
1-yr. Transplant

Hybrid
Rhododendron
1-yr. Transplant

PALLACK BROS. NURSERIES, INC.

RFD 1, Harmony, Pa.
(35 miles north of Pittsburgh, Rt. 19.)

TAXUS

10,000 Hicksi, Upright Brevi-

folia and Hatfieldi.

3-year-old, extra-heavy

rooted, stocky plants.



H. VOELLMAR

42 Park Ave. Danbury, Conn.

The Veterans' Administration will also provide the needed tools, supplies and equipment, but such are usually available on the nursery. If the veteran desires to take supplemental, correspondence or part-time schooling while taking on-the-job training, the cost will be borne by the Veterans' Administration, up to \$500 per year.

The employers of veterans in on-the-job training programs are not under compulsion to keep the veteran if he does not measure up to expectations.

The procedure for on-the-job training for the vocationally handicapped and disabled veterans is slightly different. All arrangements are made with the regional offices of the Veterans' Administration. Such veterans might be trained to become successful propagators, greenhouse men, etc.

The managers of the regional offices of the Veterans' Administration are authorized to make approvals and enter into written agreement with industrial firms and business establishments for the training of disabled veterans. The Veterans' Administration is responsible for providing the disabled veteran with the necessary training to restore and assure employability in competition with able-bodied workers in the chosen vocation. The training officer of the Veterans' Administration arranges for the place of training, prepares a training program in collaboration with the employer-trainer and maintains supervision over the veteran during the training course. The disabled veteran is paid by the employer-trainer in proportion to his productivity, and he receives in addition, from the Veterans' Administration, a minimum subsistence allowance of \$105 per month if single, with additional allowance for dependents. The combined amounts, however, cannot exceed the amount the employer is paying a qualified employee for the same work.

If interested in on-the-job training, your first step is to seek approval from the state office of education, as qualified to give training. Step 2 is to secure, through the Veterans' Administration regional office, veterans of your acquaintance or others who have obtained a certificate of eligibility and entitlement. Step 3, return the certificate, after the veteran comes on the job, to the nearest regional office of the Veterans' Administration. Step 4, assume responsibility or assign responsibility to another, to insure the veteran of the training on the job which you have agreed to give. Step 5, make your required monthly reports.

SURPLUS STOCK

Available Now

All sales subject to terms as outlined in our new spring trade list mailed February 21. If you have not received your copy, write us, we will be glad to send you one.

All items listed below subject to prior sale.

APPLE, 2-year branched

	Per 10	Per 100	Per 1000
3 ft. and up, 7/16 to 9/16-in.	\$ 4.50	\$40.00	\$350.00
2 ft. and up, 5/16 to 7/16-in.	3.20	28.00	250.00
		7/16-in.	5/16-in.
Delicious, Dark Red		700	700
Grimes Golden		4500	2000
Jonathan, Dark Red		6000	4500
Northern Spy, Red		400	300
Northwest Greening		400	400
Red June		200	300
R. I. Greening		100	200
Stayman, Dark Red		300	300
Tolman Sweet		200	300
Wealthy		800	2500
Yellow Transparent			1000

SHADE TREES

	Per 10	Per 1000
Green Ash, 4 to 5 ft.	\$ 2.90	\$ 25.00
Green Ash, 5 to 6 ft.	4.50	40.00
Green Ash, 6 to 8 ft.	6.50	60.00
Elm, American, 5 to 6 ft.	4.50	40.00
Elm, American, 6 to 8 ft.	6.50	60.00
Elm, American, 8 to 10 ft.	9.00	80.00
Elm, Moline, 5 to 6 ft.	8.50	80.00
Elm, Moline, 6 to 8 ft.	10.00	90.00
Elm, Moline, 8 to 10 ft.	12.00	110.00
	Per 100	Per 1000
Poplar, Lombardy, branched, 3 to 4 ft.	\$14.00	\$120.00
Poplar, Lombardy, branched, 4 to 5 ft.	18.00	150.00
Poplar, Lombardy, branched, 8 to 10 ft.	50.00	450.00

HEDGING

	Per 100	Per 1000
Barberry, Tru hedge, 18 to 24 ins.	\$38.00	\$350.00
Barberry, Tru hedge, 2 to 2 1/2 ft.	50.00	450.00

PHLOX

We can still supply limited quantities of Phlox in varieties and prices as advertised in March 1 issue of The American Nurseryman. Send us your want list and get our prices before you buy.

LAKE'S SHENANDOAH NURSERIES

1870

Shenandoah, Iowa

1946

ORNAMENTAL VINES

Field-grown

	Per 100
Ampelopsis Quinquifolia, No. 1	\$15.00
Celastrus Scandens, No. 1	20.00
Euonymus Coloratus No. 1	20.00
Polygonum Auberti, No. 1	30.00
Hall's Honeysuckle, No. 1	12.00
Scarlet T. Honeysuckle No. 1	20.00
25 at 100 rate; F.O.B. Fairport.	

JAMES I. GEORGE & SON

Growers
Fairport, N. Y.

Evergreens

Barberry

Privet

Write for wholesale price list.

GARDNER'S NURSERIES

Rocky Hill, Conn.

WE OFFER

a fine assortment of 2-year shrubs twice transplanted; also fruit trees. Write for wholesale circular.

WANTED

200 Gold Flame Honeysuckle, 2-year, No. 1, or 2-year Medium. Will be pleased to receive your surplus list.



**MALONEY BROS.
NURSERY CO., INC.**

Danville, New York

GROUND COVER PLANTS

	Per 100	Per 1000
Pachysandra terminalis		
Assorted field-grown	\$ 6.00	\$ 50.00
Vinca Minor		
2 1/4-in. pot-grown	10.00	85.00
Hedera helix and Hedera helix battica		
2 1/4-in. pot-grown	9.00	75.50
Lonicera japonica halliana		
1-year field-grown	8.00	60.00
2-year field-grown	10.00	90.00
3-year field-grown	12.00	100.00
2 1/4 in. pot-grown	10.00	90.00

HUGH B. BARCLAY

Narberth, Pa.

Jap Beetle Trapping

Results of the trap-scouting performed during the summer of 1945 to secure information on the distribution and possible status of the Japanese beetle in localities outside the area regulated by federal quarantine are summarized in a statement just issued by the bureau of entomology and plant quarantine of the United States Department of Agriculture. This includes a list of all localities outside the regulated area where trap-scouting was carried on with positive results during the seasons 1936 to 1945, inclusive, with the respective catches, together with a list of localities where soil treatments have been applied at isolated infestations from 1943 to date.

Acreages to which soil treatments were applied in 1945 were much reduced from those of the past few years, coinciding with a general reduction in beetle population due to unfavorable conditions for grub survival in 1944. Soil treatments completed, plus additional acreages to be completed in two Virginia communities in the spring of 1946, total 555.25 acres. This type of treatment involves the application of lead arsenate at a dosage of 500 pounds per acre. Extensive experimental soil treatments with DDT were undertaken at Blowing Rock, N. C.

Suppressive measures already applied or assured for spring of 1946 in localities outside the regulated area, together with state quarantine action in certain outlying areas will, in most instances, assure protection from spread at least comparable with that afforded if the federal quarantine were extended. Immediate additions to the area regulated under the federal Japanese beetle quarantine as a result of the season's trapping and survey records, therefore, will probably be limited to a single election district in Allegheny county, Md.; the township of Madison, Licking county, and township of Marion, Franklin county, O., and the town of Shenandoah, Va.

Results of Trapping.

More widespread than in any previous year, the 1945 Japanese beetle trapping program extended to 698 localities in thirty-five states. Total traps used during the year was 56,377, some 10,000 fewer than the previous year. However, the coverage was a considerable increase over the 462 localities trapped in 1944. Beetles were caught in ninety-six cities and towns. Of these, thirty-five were first-record collections. At fifty-six local-

ities the number of beetles collected were few, and the conditions are of such a nature that there is no hazard of spread through movement of products into other sections. No action in reference to these localities is contemplated at this time. At the remaining forty localities control or regulatory action is needed. At thirty-three of the forty localities soil treatment has already been applied. The remaining seven will be either under state quarantine, or the soil treatment will be applied in the spring of 1946.

Lack of rainfall in the summer of 1944 resulted in a rather general reduction in beetles caught during 1945 at isolated infestations where the combination of trapping and a soil program has been depended upon to keep the beetle in check. The same condition existed in the continuously infested area, where a marked drop in beetle populations occurred, except in a few places where 1944 precipitation was near normal.

State-federal cooperative soil treatments of important isolated infestations were continued by the states of Georgia, Illinois, Indiana, Michigan, Missouri, New York, North Carolina, Ohio and Virginia.

Contrasted with the 708 beetles trapped in Chicago in 1944, this year's capture of 164 showed an improved situation there. Cooperative soil treatments this year covered 62.45 acres. The only other beetles captured in Illinois were five at Highland Park and one at East St. Louis.

Fewer beetles were trapped in Indianapolis, Ind., than in any other year since the first beetles were caught there in 1934. The season's collection was limited to three specimens. Another beetle was captured at Whiting, Ind. At Elkhart, where twenty-one beetles were caught, 19.2 acres received soil treatment.

A solitary beetle trapped in a residential section of Kansas City, Kan., constitutes a first record for that state.

At St. Louis, Mo., the infestation was again at a minimum, with only seven beetles caught. The section of 7.7 acres involved received soil treatment.

Ohio did a complete soil-treating job of all infestations determined outside the regulated area of the state, except at four localities showing solitary beetles only; at Belpre, where the thirty-two beetles trapped were within the confines of the already treated area, and at two established infestations found by nursery scouts adjacent to the Columbus and New-

SURPLUS LIST

Pyramidal Arborvitae, 4 to 6 ft.
Irish Juniper, 3½ to 5 ft.
Red, Austrian and Scotch Pine, 3 to 6 ft.
Crataegus Crusgalli, Mollis and Punctata, 5 to 8 ft., good specimens.
Viburnum Lentago and Lantana, 5 to 6 ft.
Caragana, 5 to 6 ft.
Honey Locust, 1½ to 2½-in.
European Mt. Ash, 2 to 2½-in.

Also other items.

Write for prices.

CHESTERTON NURSERIES, INC.
Chesterton, Ind.

WANTED AT ONCE

1000 European White Birch Seedlings

12 to 30 ins.

Quote price.

CARL A. TILLMAN
Nursery & Landscape Service
Rt. 2 Newburgh, Ind.

WANTED

1000 Juniperus Scopulorum (Colorado Juniper) Liners

300 Berckmans' Golden Arborvitae Liners

BURGIN NURSERY
Route 4 Hutchinson, Kan.

WANTED

300 Spreading Yews, 15 to 18 ins.
300 Spreading Yews, 18 to 24 ins.
100 Spreading Yews, 3 to 2½ ft.
100 Upright Yews, 18 to 24 ins.
100 Hicks Yews, 18 to 24 ins.
Please send catalog and surplus list on other stock.
G. E. HEIDEMANN NURSERY
Addison, Ill.

AZALEAS

Liners Wanted—Hardy Types

J. L. NALEN
8 Grosbeck Road Yonkers, N. Y.

Ornamental Trees, Shrubs and Evergreens

Write For Our Wholesale Trade List

W.-T. Smith Corporation
Telephone 2689 GENEVA, N. Y.

ark isolated regulated areas. Addition of these latter two townships to the regulated areas is anticipated. A total of 132.55 acres received soil treatments in Bellevue, Crestline, Elyria, Gallipolis, Geneva, Lorain, Loudonville, New Concord, Painesville and adjacent Lake county area, and Willard.

Most important of the fifteen infestations determined in Virginia this year was that at Shenandoah, where 1,656 beetles were trapped for a first record in this locality. Soil treatments are not contemplated here, and it is under consideration for quarantine extension. Soil treatments were completed at Alta Vista and Wytheville, first-record infestations of nine and four beetles each, with respective applications to 7.7 and 4.2 acres.

SUPPLY OF INSECTICIDES AND FUNGICIDES IN 1946.

With few exceptions, the outlook continues to be excellent for 1946 supplies of agricultural insecticides and fungicides, the Agricultural Insecticide & Fungicide Association reported recently.

Nicotine continues tight, and no prospect is held out for its getting back into the wholly adequate or plentiful class this season.

Rotenone supplies continue their gradual improvement. Latest industry information is that supplies of this stand-by should be adequate for major needs, once it is understood that suppliers cannot provide every customer's full demands at the time the customer wants it.

Despite the time elapsed since the Japanese surrender, industry still has practically no information on the Far Eastern plantations which formerly were the chief rotenone sources.

DDT insecticide demands are an uncertain quantity. Suppliers of DDT preparations expect to be able to fill all orders if the demand is reasonably in line with state and federal recommendations.

The pyrethrum prospect is for ample supply. Sabadilla is uncertain.

Adequate to plentiful supplies are predicted all down the line for the copper compounds, new organic fungicides, seed disinfectants, soil disinfectants and the hormone and other week killers.

While paradichlorobenzene still is tight, the amount available for agriculture is expected to be adequate.

JOHN H. KELSO, Chester, Mass., has returned to the landscape business after serving three years in the army.

SURPLUS LIST

Spring, 1946

FIG

Varieties: Brown Turkey, Celestial and Magnolia.

6 to 12 ins.	Each
12 to 18 ins.	\$0.10
18 to 24 ins.	.15
2 to 4 ft.	.18

NATIVE SEEDLING PECAN

18 to 24 ins.	.35
2 to 3 ft.	.40
3 to 4 ft.	.50
4 to 5 ft.	.75

BAKER'S ARBORVITAE

2 to 3 ft., B&B.	.75
3 to 4 ft., B&B.	1.00
4 to 5 ft., B&B.	1.25

AMERICAN ARBORVITAE

18 to 24 ins.	.45
2 to 3 ft.	.55
3 to 4 ft., B&B.	.65
4 to 5 ft.	.75

COMMON BOXWOOD

6 to 12 ins.	.35
12 to 15 ins., B&B.	.45
15 to 18 ins.	.55

SPECIAL!

GRAPE MYRTLE

Pink or Lavender.

18 to 24 ins.	.15
2 to 3 ft.	.20

2000 Amur River North Privet, 6 to 12 ins., 1 and 2 canes, \$15.00 per 1000.
 Ile de France liners, \$3.50 per 100.
 1050 Magnolia liners, \$3.50 per 100.
 10,000 Ass't. Apple, 1-yr., 2 to 3 ft.
 3 to 4 ft. and 4 to 5 ft.

GRAPEVINES

Carman and Concord.

No. 1	Each
No. 2	\$0.10
	.08

MUSCADINE GRAPEVINES

Varieties: Scuppernon, James and Thomas.

No. 1, Heavy	.28
No. 2, Medium	.32

CHERRY LAUREL

2 to 3 ft., Br.	.65
3 to 4 ft., Br.	.75
4 to 5 ft., Br.	1.00

IRISH JUNIPER

18 to 24 ins., B&B.	.55
2 to 3 ft., B&B.	.65
3 to 4 ft., B&B.	.90

NORWAY SPRUCE

12 to 18 ins., B&B.	.55
18 to 24 ins., B&B.	.75
2 to 3 ft., B&B.	1.00

SAVIN JUNIPER

18 to 24 ins., B&B.	.75
---------------------	-----

ANDORRA JUNIPER

18 to 24 ins., B&B.	.65
2 to 3 ft., B&B.	.75

ABELIA GRANDIFLORA, BR.

18 to 24 ins.	.10
2 to 3 ft.	.15
3 to 4 ft.	.20

ABELIA CUTTINGS

7 1/2 ins., per 1000	4.50
----------------------	------

ROSE BUDDING UNDERSTOCK

(Not de-eyed.)

7 1/2 ins., per 1000	7.50
----------------------	------

10,000 Ass't. Peach, June Buds, 12 to 18 ins., 18 to 24 ins., 2 to 3 ft. and 3 to 4 ft.

M. B. Twig, Red Delicious and Winesap Apple Scions, \$4.50 per 1000, while they last.

EMPIRE NURSERY & ORCHARD

Baileytown, Ala.

HESS' NURSERIES

Sold out for
spring 1946.

Mountain View,
New Jersey

EVERGREEN LINERS

Many species and varieties of seedlings and transplants for spring planting.

Write for price list.

SUNCREST EVERGREEN NURSERIES
Johnstown, Pa.

Grapevines, Currant Roots,
Currant Cuttings and Berry Plants.
Small Fruit Specialists.

WEST HILL NURSERIES
Fredonia, N. Y. Since 1875

KOSTER NURSERY

Division of Seabrook Farms

Wholesale Nurserymen

BRIDGETON, N. J.

Write for wholesale price list of
lining-out and specimen stock
in better evergreens and shrubs.

We Offer—

EVERGREENS—In a large assortment of PYRAMIDAL and GLOBE ARBORVITAE, PFITZER JUNIPER and YEWs in grades at attractive prices. SOME LARGE SPECIMEN EVERGREENS. SHRUBBERY and SHADE TREES.

Mail want list for prices.

THE WESTMINSTER NURSERIES
Westminster, Md.

Letters from Readers

REPLACEMENT GUARANTEES.

The practice of guaranteeing nursery stock to live, and making replacements free or at half price if it does not, vitally interests many retail nurserymen, whether they are small operators who need to economize, or large operators, with high labor costs, who have a dwindling supply of stock that they want to sell at the full price. Such guaranteeing of stock is a trade practice that may well be discarded and forgotten.

The basic reason why a nurseryman guarantees his stock to live and offers replacements at little or no cost to the customer is that the seller thinks he would lose prestige, business or potential future profits if he did not make such a promise. It may be said that the seller is entertaining an erroneous, or unreal, idea. This statement, judging by the evidence obtained and assembled, has plenty to support it, as we shall see.

When offering replacement stock at less than the full price, we, as nurserymen or landscape planters, not only obligate ourselves and mortgage our future efforts necessary to the growing and handling of such material, but we also cheapen the items sold at regular price. By offering standard material at a reduced price, we place ourselves at a disadvantage in the eyes of the buyer. This is none too good for our reputation, or for our business. Therefore, we might look for a definite and final solution to this problem of guarantees. The solution to the problem may be said to be too simple to comprehend readily, for simple it is indeed.

Through the various associations and other cooperative trade channels, nurserymen may well agree to discontinue replacements at less than the full price. If no nurseryman, grower, dealer or landscape planter guarantees the items he sells, the public will cease to expect half-price or totally free replacement goods. It is probable that the first replacement offer ever promised was suggested by a seller, who had little confidence

in his selling ability, and not asked for by a buyer. It is obvious that the remedy is to take hold of ourselves and turn loose from the grip of the replacement idea and quit thinking we will suffer losses in the process. Observations recorded here will show how this works out to the advantage of the seller.

Our great chain store systems and mail-order houses dispense large quantities of trees, shrubs, perennials and bulbs every year. These businesses are managed by some of the best minds in the country. Most of them do not make liberal or loose guarantees that result in losses to their companies, because they never have entertained or cultivated the replacement idea. You may say, "That is true, but I couldn't get away with it." Well, have you tried?

Let us bring this thought a little nearer home and consider the experiences and opinions of some active nurserymen, who, realizing that they were being victimized by the replacement guarantee idea, decided to discontinue its use. In studying the problem carefully and completely they were surprised to learn that their difficulties were largely imaginary.

In 1939, before the present buying tide came in, one retail grower looked at the problem from various angles. His first policy was to sell nothing that he knew would not do well in the territory he served. It was obvious that if he followed this policy there could be few complaints. Later he went a step farther and appealed directly to his customers by sending them personal letters. The letters were sent to his best customers and said in part, "Our future policy will be not to make any guarantee on the items we sell; neither will we make any free or half-price replacements. For the past few years we have made a study of the conditions concerning our business and have learned that only about five per cent of our customers expect any kind of replacement guarantee. So we have decided to confine our efforts to satisfying and dealing with the remaining ninety-five per cent, which, we think, will give us all the business we can take care of." Many who received the letters inconvenienced themselves to tell the sender that they admired his attitude. Several recipients said that if they, themselves, were nurserymen, there would be no guarantee. A most gratifying result was a substantial increase in

Readers are invited to contribute their views on trade subjects to this page. By the exchange of ideas and information, all are benefited.

DECIDUOUS TREES

Will sell the following very reasonably, but the buyer must dig and remove them.

500 **Honey Locusts**, 2 to 2½ ins.

50 **Norway Maples**, 4 to 8 ins.
Sycamores
White Ash
Pin Oaks

Some **Apple and Plums**.
2 to 4 ins.

FAIRVIEW NURSERY

4011 Fairview Ave.
Downers Grove, Ill.

FRUIT TREES

Send today for List of Trees available.

If you have a Surplus List we would appreciate receiving it.

KELLY BROS. NURSERIES, INC.
Dansville, N. Y.

BOBBINK & ATKINS

Nurserymen and Plantmen

Visitors always welcome.

Paterson Ave. E. Rutherford, N. J.

NOVELTY PERENNIAL and ROCK GARDEN PLANTS

Wholesale Trade List now ready.
Send for your copy.

CARROLL GARDENS Westminster, Md.

Ornamental Trees and Shrubs. Perennials in a wide assortment of varieties. Asparagus, Raspberries, Multiflora Japonica Seedlings.

Write for Trade List.

BROWN BROTHERS CO.
Brighton Sta., Rochester 10, N. Y.

The **CHRYSANTHEMUM CATALOG** you cannot afford to be without.

WONDERLAND NURSERIES
Ellerson, Va.

Rhodos
BOTH NATIVE
AND NURSERY GROWN
KALMIA AZALEAS
Hemlocks AND Pieris
La Bars'
STROUDSBURG PA.

We have been swamped with advance bookings to the point that we are already sold out for this Spring in all the smaller popular sizes. Our only offerings now are Collected plants, or larger sizes of nursery-grown material.

LA BARS'
RHODODENDRON NURSERY

ACER PLATANOIDES NORWAY MAPLES

	Per 100
12 to 18 ins.	\$ 5.00
2 to 3 ft., trans.	3.00
2 to 4 ft., trans.	12.00
6 to 8 ft., trans.	45.00

6 to 8 ft., ¾ to 1-in. cal., whips, per 100, \$75.00; 8 to 10 ft., ¾ to 1-in. cal., well branched, per 10, \$10.00; per 100, \$85.00; 8 to 10 ft., 1 to 1½-in. cal., well branched, per 10, \$12.50; per 100, \$100.00; 1¼ to 1½-in. cal. (in the ground), ea., \$1.50, plus 25c dug bare root; 1½ to 1¾-in. cal. (in the ground), ea., \$2.00, plus 35c dug bare root.

Special
7 to 12 ft., ¾ to 1-in. cal., \$50.00 per 100
(Not assorted, due to labor conditions)
Free baling with cash with order. 25 per cent cash with order, balance before shipment. All trees are Jap Beetle Quarantine inspected.

STATE ROAD NURSERY
State and Sproul Rds., R. 1 Media, Pa.

"PROPAGATION OF HORTICULTURAL PLANTS"

By G. W. Adriance and F. R. Brown.

A textbook on methods, including bulbs, layerage, cuttage, budding and grafting. Accepted methods for commercial propagation of specific plants are given in detail. 314 pages. (1939)

Price \$3.00, postpaid.

AMERICAN NURSERYMAN
343 South Dearborn St. Chicago 4, Ill.

"A friendly, efficient sales service"

E. D. ROBINSON
SALES AGENCY
38 So. Elm St. P. O. Box 285
WALLINGFORD, CONN.

Representing
Adams Nursery, Inc.
Bristol Nurseries, Inc.
Barnes Brothers Nursery Co., Inc.
North-Eastern Forestry Co., Inc.
A. N. Pierson, Inc.
A complete line of well grown hardy plant material
Evergreens and Lining-out Stock

HEMLOCKS
KALMIA, RHODODENDRON, AZALEA
CURTIS NURSERIES
CALLICOON NEW YORK

sales and profits. Many who received the letters were, some six years later, still spending their money with the same grower.

When asked by prospective buyers about his guarantee, one nurseryman, who enjoys a good landscape trade, tells them that severe weather conditions, such as droughts and sudden freezes, are hard on transplanted material, and, as he does "not make the weather," he cannot very well be responsible for the results. Nearly every prospect agrees with him instantly.

Approached on the matter of guarantees, a landscape planter declared, "I want to please fair-minded people only. A man who wants his stock guaranteed is not fair-minded, considering the soil, the weather, neglect and the human desire to get something for nothing. I am better off without that kind of business."

A neighboring nurseryman, who deals with a good class of trade, said that he "would like to make guarantees, but had been taken advantage of so many times" that he dismissed all thought of them and could not see that he had lost any sales because of his attitude. Another retail grower, who is quite successful, avoids making guarantees by saying "Stock is scarce and replacement material may not be available." His customers accept this as being logical, especially under the present prevailing conditions.

It is obvious that if we made no replacement guarantee, our customers would not demand it. Instead of giving the replacement idea fertile lodgment in our minds, we should renounce it, and its problem will cease to exist. It is quite apparent that we should decide—and firmly—to quit guaranteeing stock and adhere to our policy until the idea is starved out. If some stock should not thrive, our intelligence will devise the methods that best fit each case. We shall not lose anything in the adoption of a new policy, because we shall have placed our thinking on a higher plane and put our business on a better and more profitable basis.

There is good psychology in knowing that we are making an earnest effort to help ourselves by scrapping a needless practice. Our customers will cooperate with us because it is an established fact that folks like to see a man try to help himself.

Byron S. Traster.

JOSEPH F. DUBACK, army veteran, has opened the Duback Landscaping Service, at St. Paul, Minn.

LINING-OUT STOCK

SHRUBS

	Size	Per 100
200 Forsythia Fortunei, 12 to 18 ins.	\$10.00
200 Weigela Rosa, 12 to 18 ins.	10.00
450 Koikwitzia Amabilis, 2½-in. pots.	15.00

VINES

100 Celastrus Scandens, 12 to 18 ins.	.....	7.00
250 Lonicera Halliana, 12 to 18 ins.	.....	6.00

EVERGREENS

Taxus Brevifolia, 2½-in. pots	.....	15.00
Taxus Brevifolia, R. C.	.....	9.00
Taxus Cuspidata, 2½-in. pots	.....	13.50
Taxus Cuspidata, R. C.	.....	9.00
Taxus Hicksi, R. C.	.....	9.00
Taxus Intermedia, 2½-in. pots	.....	18.00
Taxus Moens, R. C.	.....	9.00
Taxus Moens, 2½-in. pots	.....	13.50
Chamaecyparis Ob. Crippsi, 2½-in. pots	.....	13.50
Chamaecyparis Pissifera, 2½-in. pots	.....	13.50
Chamaecyparis Pissifera, R. C.	.....	9.00
Chamaecyparis Pissifera Aurea, R. C.	.....	9.00
Chamaecyparis Plumosa, 2½-in. pots	.....	13.50
Chamaecyparis Plumosa, R. C.	.....	9.00
Chamaecyparis Plumosa Aurea, R. C.	.....	9.00
Chamaecyparis Plumosa Aurea, 2½-in. pots	.....	13.50
Juniper Pfitzeriana, R. C.	.....	9.00
Juniper Depressa Plumosa, R. C.	.....	9.00
(These are low-spreading, good type.)		
Thuja Oc. Pyramidalis, R. C.	.....	9.00
Thuja Globosa Compacta, R. C.	.....	9.00
Tsuga Canadensis, 6 to 9 ins.	.....	20.00
Tsuga Canadensis, 9 to 12 ins.	.....	35.00

These Hemlock are collected. Growing in the north.

The following Hemlock are nursery-grown in pots.

	Per 100	Per 1000
Tsuga Canadensis, 5 to 7 ins.	\$15.00	\$120.00
Tsuga Canadensis, 7 to 9 ins.	18.00	150.00
Tsuga Canadensis, 4 to 12 ins.	20.00	175.00
Biota Aurea Nana, pot-gr.	20.00	175.00
Pyracantha, pot-gr., 2-yr.	12.00	100.00
Ilex Crenata, R. C.	9.00	.....
Ilex Crenata, XX, 2½-in. pots	15.00	.....
Pachysandra Terminalis, 2½-in. pots	10.00	.....
Euonymus Carrierei, 8 to 12 ins.	12.00	100.00
Euonymus Colorata, 8 to 12 ins.	12.00	100.00
Euonymus Radicans, 8 to 12 ins.	12.00	100.00

Additional Lining-out Shrubs

	Per 100	Per 1000
Althaea in variety, 6 to 12 ins.	\$ 4.50	\$ 40.00
Barberry, Red-leaved, pot-gr.	9.00	80.00
Barberry, Thunbergi, 6 to 9 ins.	4.50	35.00
Barberry, New Globe, 6 to 9 ins.	35.00	.....
Barberry, New Globe, 9 to 12 ins.	45.00	.....
Lonicera Zabeli, 8 to 12 ins.	7.00	60.00
Privet, California, 12 to 18 ins., T.	3.50	30.00
Privet, Amur River N., 12 to 18 ins.	6.00	55.00
Tamarix Hippida, 12 to 18 ins.	6.00	50.00
Viburnum Burkwoodi, 2-in. pots, 1-yr.	22.50	20.00
Viburnum Lantana, 6 to 10 ins.	12.00	100.00
Viburnum Plicatum, pot-gr.	12.00	110.00

Note: "R. C." means Rooted Cuttings.

Some of the pot grown stock will have to have soil washed off if shipped outside of beetle area.

All of above are offered subject to stock being sold on receipt of order; F. O. B. shipping point; packing at cost. Terms: 25 per cent cash with order, balance C. O. D.; 30 days to established credit.

I can furnish other lining-out stock and have heavier material to deliver within 25 miles of New York City or Philadelphia. (Bernardsville is half way between New York and Philadelphia). But—I do not grow it or have much, if any, stock on hand. I just sell it. I do not issue a catalog and had no time this Spring to make up and mail a mimeographed list. If you want anything, let me know what it is you want.

ARTHUR DUMMETT
Phone: Bernardsville 8-1340
63 Anderson Rd., Bernardsville, N. J.

HARDY NATIVE EVERGREENS

Collected Stock

Canadian Hemlock American
Arborvitae, Balsam Fir

	Per 1000
3 to 6 ins.	\$ 8.00
6 to 9 ins.	12.00
9 to 12 ins.	25.00
12 to 18 ins.	35.00

Cash please.

R. M. COLE

Box 37

Charlotte, Vt.

New Books and Bulletins

DISPLAY GROUNDS PLANS.

Anyone who proposes to build a nursery sales and display grounds will be able to reap an abundance of suggestions and practical ideas from the folio of fifteen plans, including the prize-winners in the competition for a design of a nursery sales and display grounds, now obtainable from the secretary of the National Landscape Nurserymen's Association. As reported previously, forty-five plans were entered in the contest and were displayed at Chicago in January, and some of the leading plans have been displayed at other trade gatherings since.

Each plan is reproduced by a photograph 16x23 inches, and with it are reproduced any typewritten instructions or any details accompanying the plan in the original. The fifteen sets have been bound in a flat board folio, convenient for study and subsequent reference. The photographic reproductions are better than might have been expected from some of the water color sketches and wash drawings. All of the captions and details show up clearly.

The nurseryman who is planning a display grounds will find this folio well worth the price even if he pays \$85 for it—members of the N. L. N. A. and the American Association of Nurserymen can get it at a considerably lower figure.

YOUR OWN BUSINESS.

Since the idea of owning a business seems so much more appealing than working for someone else now, information on how to start a small business is widely sought. A broad picture of what may be involved in such a venture is shown in the 30-page booklet, "Establishing and Operating Your Own Business," issued by the United States Department of Commerce and obtainable for 10 cents from the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C.

If the prospective businessman recognizes the advantages and disadvantages of operating his own business, is prepared for the bad breaks as well as the good ones and realizes that hard work and worry go with the satisfaction of being completely independent, the next question is "Can You Make a Go of the Business You Have in Mind?" The answer is not in this booklet, but much helpful information is. While only

the high spots of the many and complex phases of operating a business can be covered, such as opportunities available, chances of success, amount and kind of experience necessary, where to locate, how much capital is needed and where to procure it, an effort has been made to present a realistic picture of the problems to be met.

An appendix, "Check List for Establishing a Retail Business," can be of help in checking the multitude of details that must be settled before investing money in a business.

JOHNNY APPLESEED.

The pioneer nurseryman of the middle west, John Chapman, is of so much interest in his legendary character of Johnny Applesseed that those readers who seek more about him than appeared in the article in these pages last fall, "Johnny Applesseed, in Fact, not Fiction," will find abundant material in two paper-bound booklets published by the Swedenborg Press, Paterson 1, N. J., each priced at 50 cents. One is a bibliography of forty pages by Robert Price, of the English department of Ohio State University. The other, "Johnny Applesseed, A Voice in the

Wilderness," was published last year as a centennial tribute. Its eighty-eight pages contain discussions of various aspects of his life by a half-dozen authors. Through these two pamphlets one can find all that has been written about this remarkable person—in prose and poetry.

ARTIFICIAL MANURE.

The necessary conditions for the decomposition of plant materials and the methods of composting under Florida conditions, as well as the results of some composting experiments at the Florida agricultural experiment station, are discussed in the station's bulletin 415, "Production of Artificial Manure," by F. B. Smith and G. D. Thornton.

Any plant material may be composted, but in the Florida experiments composts were made of water hyacinth, pine needles, Spanish moss and Spanish moss gin waste. Since the production and use of artificial

We have a nice assortment of shade trees to offer in the following varieties:

NORWAY MAPLE
GINKGO BILOBA
SCARLET OAK
PIN OAK
RED OAK
BLACK OAK
AMERICAN ELM

FAIRVIEW EVERGREEN NURSERIES
Fairview, Pennsylvania

PFITZERS

An outstanding planting of Finished Trees.

24 to 30 to 36 ins.
Also smaller sizes.
Beautiful stock B&B
Shipment in moss, if preferred, individually wrapped or bulked.
Also Tamariscifolia, various Pines, Concolor Fir, Colorado Blue Spruce, Colorado's Silver Cedar, etc.

HIGH VALLEY FARM

Colorado Springs, Colo.

MOUNTAIN VALLEY

PLANTS HAVE UNUSUAL STAMINA

TAYLOR, LATHAM, ST. REGIS,
CHIEF RASPBERRIES, No. 1, \$50.00 per 1000.

GEM EVERBEARING STRAW-
BERRIES, \$17.50 per 1000.

Grown in our famous
Bitterroot Valley

TREADWELL NURSERY CO.
Great Falls, Mont.

COLORADO - GROWN

CHINESE ELM

A Limited Supply of most sizes yet available. Write for List.

SWINK NURSERY

R.F.D. 3, La Junta, Colo.

CLIMBING ROSES

Paul's Scarlet
Climbing American Beauty
Dr. Van Fleet
No. 1—60c ea.
Dorothy Perkins
Excelsior
No. 1—45c ea.

Now available in quantities, but please order EARLY.

Jackson & Perkins Co.
NEWARK, NEW YORK

EVERGREENS

Hardy, northern-grown
B&B Evergreens

HOLTON & HUNKEL CO.
NURSERIES

P. O. Box 1747, Milwaukee 1, Wis.
Nurseries at Brown Deer.

LINING-OUT STOCK

We are now booking orders for Evergreen Rooted Cuttings. We will have one quarter million of the better varieties for shipment during this year. Shipment will begin around April 15. Reserve yours now.

	Per 100	Per 1000
Abella Grand., R. C.	\$ 6.00	\$ 50.00
American Arb.,		
4 to 6 ft., X.	8.00	...
American Arb.,		
12 to 16 ft., X.	25.00	...
Juniper Sabina, X. heavy	20.00	...
Taxus Cuspidata, R. C.	10.00	50.00
Taxus Capitata, R. C.	12.00	100.00
Ret. Plumosa,		
4 to 8 ft., X.	20.00	...
Ret. Plumosa, R. C.	8.00	...

Many other varieties available later.

ESHAM'S NURSERIES, Frankford, Del.

WRITE US ABOUT—

- Evergreen Liners
- Shade Trees
- Specimen Evergreens
- Flowering Shrubs
- General Assortment of Stock.

SHERMAN NURSERY CO.
Charles City, Iowa

Northern-grown Stock

Send
for
Price
List.

J. V. BAILEY NURSERIES
St. Paul 6, Minn.

CONIFERS PIN OAKS

Barberry and General line of
Ornamentals.

Refer to price list in **February 1**
issue of American Nurseryman, or
write us for reprint.

HOWARD-HICKORY CO.
Hickory, N. C.



Wholesale growers of the best
Ornamental Evergreens,
Deciduous Trees,
Shrubs and Roses.

Write for our current trade list.

THE KALLAY BROTHERS CO.
Painesville, Ohio

BURTON'S
HEADQUARTERS FOR
EVERGREEN GRAFTS, TRANSPLANTED
EVERGREENS, SHRUB LINERS.
Write!
RARE ITEMS YOU DO NOT
FIND IN MOST LISTS!
HILLTOP NURSERIES
CASHTOWN, OHIO

manure or composts are practices as old as the art of agriculture itself, methods for production vary so widely with the materials and conditions available for composting that only general procedures are given. General methods of composting for the home gardener, greenhouse operator, market gardener and large-scale producer are described.

PREVENTS SEED DECAY.

"Dust Treatments for Vegetable Seeds," by W. B. Tinsdale, A. N. Brooks and G. R. Townsend, is the subject of bulletin 413 of the Florida agricultural experiment station. Tests designed to evaluate several seed treatment materials for preventing pre-emergence damping-off were performed in infested and noninfested soil pots and flats in greenhouses at Gainesville and Plant City and in the fields at several other localities. Pure cultures of rhizoctonia were used to increase the chances for damping-off to develop. Among the chemicals used for treatment were Arasan, Cuprocid, Spargon, zinc oxide, Semesan, vasco-4, copper carbonate and phenyl-mercy compounds. Most of these materials are available on the market. Results showed that dust treatments do prevent seed decay, but provide little protection against post-emergence damping-off. Because of the low cost, these treatments are a profitable investment.

WETWOOD OF ELMS.

The American elm and its cultivated varieties Moline and Littleford, the slippery elm, the English elm and the Siberian elm are all subject to the disease commonly known as wetwood, so-called because of the water-soaked condition which the accumulation of sap produces in the infected wood. Recent investigations conducted in various cities of Illinois have isolated the bacterium responsible and the disease has been reproduced experimentally, with typical brownish discoloration of sap and wood and alkaline condition in contrast to the acidity of healthy trees.

The organism invades the tree through pruning wounds, crotch injuries and wounds made during surgical treatment, transplanting and cultivation in the nursery; it inhabits mainly the heartwood and older sapwood of the tree trunk without clogging the tissues or causing disintegration and seldom spreads into the roots or below the region of grafting in grafted types of elms. Where sufficient quantities of the wetwood sap are taken up in the current-season



Growers of a complete
line of deciduous and
coniferous species.

JEWELL NURSERIES, INC.
Lake City, Minn.

"NURSERYMEN HAVE A LONG
WAY TO GO BEFORE SATURATING
THE MARKET IN MAKING
AMERICA MORE BEAUTIFUL."

(Michigan Nurserymen's Meeting).

Fill your salesyard and warehouse with Verhalen choice nursery stock.

Wholesale Only.

VERHALEN NURSERY COMPANY
Scottsville, Texas

GRAFTS

Juniperus Scopulorum Parki
Something new.

A spreading scopulorum of the
plutzeriana type. All rights released.
Not over 100 to a customer.

Price, 75c each.

No other grafts available
this spring.

CHANDLER LANDSCAPE & FLORAL CO.
101 W. 47th St. Kansas City 2, Mo.



EVERGREENS

Growers of Quality Evergreens
Lining-out Stock a Specialty

Write for Trade List

EVERGREEN NURSERIES CO.
Established 1894 : STURGEON BAY, WIS.

Book orders early.

SPECIMEN EVERGREENS
SNEED NURSERY COMPANY.

P. O. Box 798

Oklahoma City, Okla.

wood and carried to the branches, wilt develops, the severity and extent of which depend largely upon the amount of toxic sap present. A wilting branch may lose all of its foliage and produce a new crop within three weeks, but if the wilt is severe, the entire twig or branch dies back to the larger laterals. Of the 284 elms observed which wilted because of wetwood infections, none died and only seventy-three wilted in more than one year.

The bacterium produces, through fermentation in the infected wood, a gas which, if it does not escape, creates pressure as high as five to thirty pounds per square inch, and in one tree observed, sixty pounds per square inch. This pressure follows a cycle apparently related to the air temperature, being comparatively high in the summer months, beginning in April and May, increasing until August or September and being absent in February and March.

If the affected tree fluxes freely, that is, if the accumulated gas and sap are allowed to escape, either through natural cracks in the trunk or branch crotches, or through artificially installed drains or wounds caused by the removal of branches, pressure is minimized and may be absent entirely. Neither the use of fertilizers nor the injection of any of the chemicals tried by the investigators appeared to be effective, but the installation of drains gave at least a temporary control of flux.

This disease is the subject of a 48-page illustrated bulletin, "Wetwood of Elms," by Dr. J. Cedric Carter, published by the Illinois Natural History Survey Division, Urbana.

CALIFORNIA PLANTS.

California nurserymen should be acquainted with a number of the bulletins published by the state agricultural extension service at Berkeley, Cal. A list of them can be obtained by writing to Publications Secretary, Agricultural Experiment Station, Berkeley 4, Cal.

Worth particular note is circular 109, published August, 1938, containing forty-eight pages on woody plants for landscape use in California, by Harry W. Shepherd. Tabular treatment of a long list includes the botanical and common names, origin, height in feet, use and adaptation, and method of propagation.

Covering a still wider range is a pamphlet of 168 pages, circular 53, revised January, 1943, entitled "Home Floriculture in California," by H. M. Butterfield.

NEW ROSE FOUNDATION.

Engage Dr. E. W. Lyle.

Dr. E. W. Lyle, plant pathologist specializing on roses, has been selected to take over a new position of conducting research on the production of high-quality rosebushes in cooperation with the growers in east Texas, beginning June 1. The new research position has been established to bring more direct experimentation, observation and recommendations to the individual growers who are financing this service. The formation of the Rose Research Foundation is the most recent step to improve and modernize the industry in east Texas, an industry which has grown rapidly in the past few decades to become the most important of its kind in the United States. Clark Kidd, of the Arp Nursery Co., Tyler, Tex., is temporary chairman of the foundation.

Dr. Lyle is 37 years old, was born in Texas and received his schooling in California, Oregon and New York. He received his bachelor's degree in plant pathology and botany from Oregon State College in 1930. He was employed in plant disease control work by the federal bureau of plant industry during the summers and after graduating from Oregon State College. In 1931 Dr. Lyle began graduate study at Cornell University under a fellowship provided by the New York Florists' Club. The fellowship was for the investigation of diseases of greenhouse roses and was under the direction of Dr. L. M. Massey, one of the leading authorities on diseases of ornamental plants. As a result of these studies, the black spot disease of roses has become a thing of the past for roses grown under glass. It was once the foremost trouble both with greenhouse and outdoor roses. Additional information was also secured on the graft

canker and common canker diseases of greenhouse roses.

In 1933 Dr. Lyle married Miss Clara V. Kauffman, of Portland, Ore., also a graduate of Oregon State College. In 1937 he received his Ph. D. degree in plant pathology from Cornell University and went to Texas to work on the diseases of field-grown roses at the Tyler substation of the Texas agricultural experiment station. During five years' investigations with diseases of field-grown roses, Dr. Lyle developed and helped investigate the commercial use of a new sulphur-copper dust fungicide for control of black spot and dieback. Dr. Lyle was also one of the first to point out the resistance of the multiflora roses to black spot and disclosed the resistance of Dr. T. J. Maney's multiflora-blanda hybrid to the root knot nematode disease.

During the past four years Dr. Lyle was transferred to the Blackland substation of the state experiment station, at Temple, Tex. His attention there was directed to the control of cotton diseases.

NATORP'S NO. 5.

Roads are being laid out and considerable planting is planned for the coming season on the tract of 122 acres purchased last summer by the W. A. Natorp Co., Cincinnati, O., and known as the firm's nursery No. 5. It is on one of the highest spots in

KEPLINGER'S ORIGINAL STRAIN

Gem Everbearing Strawberry Plants

13 years of scientific improvement of original strain, outyielding all others 2 to 1, spring and fall.

Per 1000

The world's best GEM stock plants \$25.00
America's finest GEMZATA plants 35.00

All plants F.O.B. here; Red Stele disease-free.

HEART-O-MICHIGAN FARMS & NURSERIES

Frank J. Keplinger, Prop.
Farwell, Mich.

NATIVE AZALEAS and EVERGREENS

Azalea Calendulacea. Bush Honeysuckle. Flame, clump, 18 to 24 ins.	Per 100 \$6.00
Azalea Nudiflora. Pinxterbloom. Clumps, 18 to 24 ins.	Each 6.00
Ilex. American Holly. 3 to 5 ft.	Each \$1.00
Tsuga Canadensis. Hemlock. 3 to 5 ft.	Each 1.00
Juniperus Virginiana. Red Cedar. 3 to 5 ft.	Each 1.00

SALE FOR THE MONTH OF APRIL

Juniperus Virginiana. Red Cedar. 6 to 12 ins., per 1000.
Tsuga Canadensis. Hemlock. 3 to 6 ins., per 1000.
Spiraea Callosa Rosea. pink bloom, 2 to 3 ft., per 100.
Hypericum Densiflorum. yellow flower, 12 to 24 ins., per 100.
Azalea Calendulacea. Bush Honeysuckle. Flame, 18 to 24 ins., per 100.
These five items for \$20.00. This sale closes April 30, 1946.

JOHN MCCARVER & SONS

Box 487

McMinnville, Tenn.

C. M. Hobbs & Sons, Inc.

BRIDGEPORT INDIANA

Established 1875

WHITE-FLOWERING
DOGWOOD

GINKGO

NORWAY MAPLE

SOFT MAPLE

SWEET GUM

THURLOW WILLOW

WELL GROWN EVER-
GREENS, in variety.

FRUIT TREES AND SMALL FRUITS

HARRISON BROTHERS NURSERIES

G. Hale Harrison, General Manager
BERLIN, MARYLAND

THE GOLD CHESTNUT NURSERY

Chestnut Tree Headquarters

Cowen, W. Va.

LINERS • TREES

Wholesale Prices to the Trade Only.

EVERGREENS, TREES and SHRUBS

In quantity, Truckload or carload.

Write us your requirements.

EUGENE A. DE ST. AUBIN & BRO., INC.
Box 1 Addison, Ill.

GREEN ASH

Per 100
6 to 8 ft. \$ 55.00
8 to 10 ft. 65.00

Packing at cost.

DAHLBERG NURSERIES

Ladysmith, Wis.

BUXUS SEM. WELLER

(Weller's Hardy Northern Type)

Only Boxwood proved hardy in Northern States for Twenty Years.

Ask for our Perennial catalog.

WELLER NURSERIES CO., Inc.
Leading Perennial Growers
Holland, Mich.

Wholesale growers of

SMALL FRUIT PLANTS
Grapes, Currants and Raspberries—
our specialty.
Hydrangea P. G.

FOSTER NURSERY CO., INC.
69 Orchard St. Fredonia, N. Y.

Hamilton county and has over one mile of frontage on the highway. It is located about seven miles from the nursery on Montgomery road.

About fifty acres were graded last summer and autumn, with considerable time being spent to get the place in perfect condition as to drainage, etc. More than 40,000 shrubs and evergreens were planted last autumn. Roads are being laid out to make plots 250 feet square, as this has been discovered as the most efficient arrangement for a retail nursery after considerable experimentation.

RADIO PROGRAMS SALUTE BULB AND SEED GROWERS.

The bulb industry and the vegetable seed growing industry were honored recently in special radio tributes. Each night the Valley Forge Caravan, aired over station KYW, Philadelphia, salutes one of America's industries. Under the sponsorship of the Adam Scheidt Brewing Co., Norristown, Pa., this series of programs is offered to further a wider public appreciation of American free enterprise.

February 6 a special program saluted the bulb industry for its service in creating beauty for the American homeowner. The W. Atlee Burpee Co., Philadelphia, was the host.

The vegetable seed growers were honored March 4 for the fine work they do in supplying farmers and home gardeners with highest-quality seeds to provide food not only for Americans, but for the peoples of many other nations as well. Representing the seed growers were L. Frankl, of the W. Atlee Burpee Co., and Frank W. Baker, of the Henry F. Michell Co., both Philadelphia firms.

RAYMOND ANDERSON, son of Frank Anderson, Erie, Pa., has been discharged from the navy and returned home recently. He has served in the navy since March 25, 1943, and at the time of his discharge was an electronic technician's mate on the Wilkes Barre, which was in the Third Fleet and after the war was transferred to the Seventh Fleet. Mr. Anderson wears the victory medal, the American campaign ribbon, the Asiatic-Pacific ribbon with four stars and the Philippine liberation ribbon with one star. He had been in China and Japan just prior to his return home. He attended school in the navy for a total of forty weeks, at the Wright Junior College, Chicago; Grove City College, Pa., and radio school at Treasure Island, San Francisco. He plans to continue the study of electronics as a civilian.

NORTHERN-GROWN STOCK

First-class stock that will reach you in good condition, even if your season is advanced.

White or Canoe Birch, Per 10
8 to 10 ft. \$ 5.00

Rock or Cork Bark Elm, Per 100
4 to 5 ft. \$ 10.00

White Pine Seedlings, 4-yr. select,
12 to 15 ins. 6.00

White Pine Seedlings, 3-yr., Per 1000
6 to 8 ins. \$ 20.00

OSTRICH PLUME FERNS.

Hardy. 75 per cent sun. 2 1/2 to 4 ft. high. Multiplies with root runners. A very good salesyard item. Large clumps.

\$6.00 per 100

5 per cent discount, free packing, until April 1. No C.O.D. This stock will please you.

J. R. PALMER & SON

Blackduck, Minn.

Boyd
NURSERY COMPANY

McMinnville, Tenn.

ORNAMENTAL SHRUBS SHADE TREES, VINES FOREST TREE SEEDLINGS LINING-OUT STOCK

WE WILL NOW MAKE GROW CONTRACTS FOR 1946-47 For Peach and Apple.

We specialize in the propagation of the Peach and Apple. We own the exclusive budding rights of the famous **Hale Gold Peach**. You will like it. Write us for certified statements as to its great merits. We also grow the **Dixie Red** and **Dixie Gem**. Grow Contracts before budding time enable us to make the price much cheaper; besides, you can be sure of getting what you want.

S. M. Phillips Nursery Co.
Smithville, Tenn.

10,000 Tatarian Honeysuckle Seedlings

Per 1000
12 to 15 ins., X. \$50.00
50,000 **PONDEROSA PINE** Per 100
8 to 12 ins., X. \$15.00

TREADWELL NURSERY CO.
Great Falls, Mont.

ASPARAGUS

Mary Washington
1 and 2-yr. plants.

Let us quote on your needs.

BOUNTIFUL RIDGE NURSERIES
Princess Anne, Md.

CENTRAL CALIFORNIA GROUP MEETS AT NILES.

The Central California Nurserymen's Association met at the Florence restaurant, at Niles, March 14. Another overflow crowd was ready for the dinner at 7:30.

There were two topics of importance, the report of the state association directors' meeting at Santa Barbara, which was made by Clyde Stocking, San Jose, and the excellent talk on the growing of horticultural crops in Europe by Richard Auer, of the California Spray Chemical Co.

Mr. Auer told of the conditions in Europe due to the removal of all foodstuffs by the Germans as they left the occupied countries. He said it was currently impossible for the French or the Dutch or the Belgians to do much in the way of food production, as the Germans also took all mobile equipment. The survivors in the former captive countries are working as much land as they can with hand tools or oxen. Neither will be of much value in large-scale food production. This condition is further aggravated, according to Mr. Auer, because the countries have no dollar exchange and thus cannot buy tools from the United States, which is the source of all power equipment used in Europe.

Mr. Auer told of some firsthand observations of the growing of some horticultural crops in England, such as melons, which sell for \$10 apiece. These melons are greenhouse-grown and are given more care than many folks in this country give their children, such as never being touched by hands. The melons are cradled in a fish net-like basket while maturing, and when the harvest arrives the picker handles the melon with cotton to prevent it from touching a human hand. It is then packaged in a container and still never touched by hands. During the war these melons were perhaps less extensively grown, but seemingly there were a lot of them. Largely the vegetable greenhouse crop in England during the war was tomatoes. Only ten per cent of greenhouse space previously devoted to flowers was allowed to stay in such crops.

He told also of the methods of growing grapes and fruits, which are quite different from the practices in this country, such as espalier trees for commercial production of fruits. Grapes, like the melons told of above, which were never touched by human hands, sell for \$1 per bunch. He told of cucumbers two feet long and of excellent quality, peaches that are regularly grown under glass and sell

for \$2 each and are sent as gifts instead of flowers, and of a method of agriculture whereby the operator has fruit trees, berries and sheep all on the land at the same time. Such trees are not sprayed nor is the ground cultivated from one year's end to another. Mr. Auer spoke well of the governmental assistance given the farmers in England during the war, whereby it seemed to be required that the growers grow what did well in a given area, such as potatoes in one part and grains in others, whether the farmers liked it or not. He told of one wartime development that may stay. There the farmers combined their grain crops, a practice which had been said to be impossible because of the damp climate, but was made successful by taking the grain, after the harvest, and dehydrating it before trying to store it.

Not much time was devoted to spraying methods used in Europe, but Mr. Auer told of two new sprays, one the well known DDT, and a spray known as 666, which is five times as powerful as DDT, but leaves the sprayed material with a bad odor and thus limits its use, especially for food crops or home uses.

The directors of the California Nurserymen's Association in their meeting at Santa Barbara reappointed Jack Lincke for another year at an increase in salary. They decided to request the various chapters over the state to devote more time to matters of state-wide interest and made suggestions that the chapters arrange their individual meetings each month so that the executive secretary could make a swing of the state once each month and take in each chapter meeting. The directors approved a plan for cooperative insurance for the members through an already organized state-approved insurance company. It is claimed that this step alone will save the membership in compensation insurance premiums more than the annual dues cost.

The members were reminded that the annual convention of the state association will be held at Oakland in September. The next meeting of the chapter will be held at Millbrae April 11. W. B. B.

L. E. BELCHER and Vern Rodifer have opened the Powell Valley Nursery at Gresham, Ore.

HAVING been released from the navy after four years' duty, T. James Wende is opening a nursery at Alden, N. Y., which he started before entering service.

GRAPEVINES, CURRANTS, GOOSEBERRIES and BERRY PLANTS

Can also supply Currant lineouts and cuttings.

Known to the Wholesale Trade for Small Fruit Plants of Superior Quality Since 1890.

F. E. SCHIFFERLI & SON NURSERIES
Fredonia, N. Y.

RED LAKE CURRANTS
RED RASPBERRIES
Hansen's BUSH CHERRY
PARADISE ASPARAGUS

ANDREWS NURSERY CO.
FARIBAULT, MINN.

RASPBERRY PLANTS

ST. REGIS (RANERE)
LATHAM

Strong, well rooted No. 1 stock.

Can supply limited quantities heavy transplants in **St. Regis**.

Now in storage; can give immediate shipment.

Let us quote on your needs.

BOUNTIFUL RIDGE NURSERIES
Princess Anne, Md.

WANTED

FRUIT TREE STOCKS

Apple, Pear, Plum and Cherry

Also Rose Seedlings for budding.

STORRS & HARRISON NURSERIES, INC.
Painesville, Ohio

2,000,000 STRAWBERRY PLANTS

Blakemore, Missionary, Dunlap, Ambrosia, New Robinson, Aroma, Evermore Everbearing (Minnesota 1166).

Write for quotations on wholesale lots.

MULLINS PLANT FARM

S. E. Mullins, Prop.
410 Brookfield Ave., Chattanooga 4, Tenn.

APPLE AND PEAR GRAFTS

We are starting to line out our **Apple** and **Pear Grafts** within the next few days. Advise wiring in orders at once. Have **Apple Grafts** in leading varieties. **Pear Grafts** only in **Flemish Beauty** and **Anjou**, **Lincoln** and **Kieffer**. Sold out of all other varieties.

We still have a few thousand **PEACH** in leading varieties; also **1-year-old APPLE WHIPS**, 2 to 3 ft., 3 to 4 ft., and 4 to 5 ft., **Red** and **Golden Delicious**, **Jonathan**, **Grimes**, **Stayman**, **York**, **Winesap** and **Transparent**.

SHADE TREES, 6 to 8 ft., to 3-in. cal., in **Gum**, **Elm**, **Maple**, **Poplar**, **Oak**, **Ash**, **Redbud** and **Black Walnut**.

Amur River Privet, 18 to 24 ins. and 2 to 3 ft.

EGYPTIAN NURSERY CO.

Farina, Ill.

STOP—LOOK and ORDER

Due to the scarcity of labor I find I will be unable to plant my usual acreage in **Apple** and **Pear Grafts**, so I am offering the following grafts on piece root, **BARGAIN** prices, cash with order. Allow **\$1.00** per 1000 for packing.

3500	Grimes Golden	\$6.75
4500	Yellow Delicious	
3500	Red Delicious	
1500	Wealthy	
2000	Rome Beauty	per 100
1000	Black Twig	\$45.00
3000	Stayman	
2000	Turley	
1500	Winesap	
4000	Jonathan	per 1000
3000	Kieffer Pear	
\$8.50	per 100; \$70.00 per 1000	
2500	Bartlett	\$14.00 per 100;
2000	Lincoln	\$110.00 per 1000

SUNNYSIDE NURSERY, Troy, Ill.

TO ALL OUR FRIENDS AND CUSTOMERS:

We are sold out of stock for this season and wish to thank you one and all for the good business you have given us.

We wish to remind you that we should have about 50,000 or more **2-year Apple**, 50,000 **1-year Apple**, 20,000 **1-year dormant bud Peach** and 75,000 or more good **June Buds**, also many thousands each of **Grape**, **Privet**, **Shrubs**, etc.

You know our prices are right, so please keep us in mind when in need of good nursery stock at reasonable prices.

ROLLERS WHOLESALE NURSERY, Rogers, Ark.

RHUBARB

Strong Divisions	Per 100
McDonald Red	\$20.00
Ruby Red	18.00
Giant Victoria	6.00

KANSAS EVERGREEN NURSERIES
Manhattan, Kans.

WASHINGTON ASPARAGUS ROOTS

1-yr. and 2-yr.

The very best roots we have ever grown. All state inspected. Can furnish in quantity lots. Write for prices.

PAW PAW NURSERIES

Frank Nelson Paw Paw, Mich.

CALIFORNIA NOTES.

In Oakland the Better Business Bureau is insisting that advertisers of nursery stock name grades and descriptions of plants offered for sale. This is being done at the request of the nurserymen who are able and willing to produce standard goods. It is a check on certain types of more or less undesirable kinds of advertising.

Members of the Central California Nurserymen's Association each have a badge which they are required to wear at the meetings. Each man also introduces himself to the group at each meeting. These are two recently established practices and are highly approved by the membership.

Farm land values have increased fifty per cent in the state from 1939 to 1945, but are still about twenty-five per cent below the 1920 inflation prices. The population of the state has increased thirty per cent since 1940.

It is expected that over 150,000 persons will pay to see the renewed Oakland flower shows, which will be held April 30 to May 5.

The California Nursery Co., Niles, is staging its first spring bulb show since 1942 during four weeks from the middle of March to the middle of April. This was a notable event for the San Francisco bay area home gardeners before the war. The bulbs are planted in outdoor gardens, with flowering trees as a background.

Alfred and Adolfo Granara are opening a flower store and garden supply store at San Carlos April 1.

Clarence Hoff, of the Hallowell Nursery Co., San Francisco, discussed fertilizers at the recent meeting of the American Fuchsia Society.

Alfred Stettler was chairman of the show committee of the San Francisco Camellia Society, which recently held its annual flower show in the rotunda of the City Hall.

W. S. Everts, manager of the peach advisory board, a federal agency, is making a listing of the acreage of peaches by varieties and age of trees in the state.

Nurserymen are advised by the college entomologists that control of the peach twig borer, which attacks most deciduous trees at all ages, should start soon after the blossoms have fallen. A spray of four pounds of basic arsenate of lead in 100 gallons of water with about one-third of a pound of spreader is recommended. Two applications per year are usually needed in this state. The second spraying should be made before the fruit is half formed.

Although more citrus and avocado trees were grown for the spring plant-

SPECIAL BARGAIN PRICES

I find I have more grafts than I have room to plant, so I am offering the following grafts for quick acceptance, cash with order. Wired orders will have preference.

15,000 APPLE GRAFTS, P. R., in the following varieties, per 1000 **\$40.00**

Wealthy, **Grimes Golden**, **Rome Beauty**, **Stayman**, **Winesap**, **Jonathan**, and **Red** and **Yellow Delicious** and **York Imperial**.

10,000 PEAR GRAFTS, P. R., in the following varieties, per 1000 **\$65.00**

Flemish Beauty, **Anjou**, **Kieffer**, **Garber** and **Bartlett** sold only with other varieties.

• These grafts are calloused and ready for field planting.

CAHOKIA NURSERY

Phone: East 6068

Route 1. East St. Louis, Ill.

SURPLUS BERRY PLANTS

50,000 BLACK RASPBERRIES,

No. 1 tips.

Cumberland, **New Logan**, **Morrison**

70,000 RED RASPBERRIES,

No. 1 suckers.

Indian Summer, **Chief**

25,000 RED RASPBERRIES,

No. 1 transplants.

Indian Summer, **Chief**, **Taylor**

20,000 SODUS PURPLE RASP-

BERRIES, No. 1 tips.

10,000 CURRANT PLANTS, 2-yr.

No. 1 and 2-yr. No. 2.

Pres. Wilder, **Cherry**

All stock graded carefully to high standard. Write for low wholesale prices.

H. E. CONGDON NURSERY

North Collins, N. Y.

SMALL FRUIT PLANTS

Still available: **Black Raspberry tips**, **St. Regis Raspberries**, **Blackberries**, **Boysenberries**, **Rhubarb**, **Asparagus**, **1-yr. Ningara Grapes**, large quantities of **Strawberries** in spring and fall varieties. Write for quotations.

Also offering good supply of **Adams** and fair amount of **Rubel** and **Rancocas Blueberries**, 1-yr. rooted cuttings, 35c ea.; \$30.00 per 100; \$250.00 per 1000. **Rubel** 2-yr. plants, 65c ea.; \$60.00 per 100; \$580.00 per 1000.

L. J. RAMBO'S WHOLESALE NURSERIES

Bridgman, Mich.

We have a surplus of **Junipers**, also **Peach trees** and other things in variety.

Write us for our latest price list.

JOPPA NURSERY CO.

Joppa, Ala.

BLUEBERRY PLANTS

3 to 6 ins., 6 to 12 ins., 12 to 18 ins.

Well branched 2-yr. stock.

Cabot - **Jersey** - **Rubel** - **Pioneer**.

BOUNTIFUL RIDGE NURSERIES

Princess Anne, Md.

ing season, there has been a serious shortage of these trees, as most of them were grown on a contract basis for commercial orchardists.

S. L. Kempton and Ralph S. Harvey are partners in a new nursery at Glendale. Mr. Kempton is well known in the nursery trade, while Mr. Harvey seems to be a newcomer. They plan to grow container stock.

The shortage of flats has become so bad that nurserymen are asking the cooperation of such groups as the Boy Scouts to go out and get the flats. As a rule, 10 cents is given for any flat that is brought in. Some growers—in fact, most of them—will not deliver flatted plants for resale unless an empty flat is returned for each full flat taken.

Bert T. Kallman, former president of the California Nurserymen's Association, held a formal opening of his new nursery at Santa Barbara last month. The nursery now occupies about two acres of land. The business was established in 1932, and this is the second enlargement.

The Larson Nursery, Palo Alto, has been sold to R. Carbonato, who will operate under the name of the Green Gable Nursery.

In Redlands it is announced that there is a newly opened nursery operating under the name of Dangermond's Gardens.

The Barlow Nursery, Huntington Park, has changed ownership and will be operated under the name of Reid's Nursery.

Potted Crimson Glory hawthorn trees will line the streets of the business section of Burlingame during the month of April as a pre-Easter feature promoted by the chamber of commerce.

At the meeting of the San Fernando Valley Nurserymen's Association, March 13, Ed Arnesen gave a talk on the growing of camellias and brought to the meeting some specimens.

When the Superior California Nurserymen's Association met March 13, the speaker was Dr. McLeod, formerly of the department of entomology at the University of California and more recently with the War Food Administration. He is currently in charge of research of the Sunland Sulphur Co., Fresno.

The San Francisco public schools are offering a home garden forum. Harry Nelson is in charge. During the next two months lectures will be given Monday evenings at the George Washington high school and Tuesday evenings at Aptos junior high school.

The Alameda County Floral Society, which was dormant during the



Introducing the NEW STREAMLINER Everbearing Strawberry

EXCELLENT—Firm shipping berry; rich, radiant red color; full strawberry flavor; good canner and freezer; heavy bearer; excellent aroma; sturdy plant with luxurious green foliage.

Plants are available in four colors or in black and white of the new Streamliner strawberry for use in your catalogs.

war, is being reactivated. It is the oldest floral society in the state. Nurserymen in the east bay area are especially invited to attend the meetings, which are held in the auditorium of the Oakland high school. The next meeting will be April 9.

Paul Von Kempf is now out of service and is back with his father at the Pacific Nurseries, Colma, with the title of manager. W. B. B.

CROWN GALL CONTROL.

The crown gall organism causes a great deal of loss to orchardists throughout the state of California. Most soils are infected with this organism, and the bacteria attack the tree through wounds of the underground parts. Crown gall can be controlled by chemical means. Such control will add to the productive life and the value of an orchard in greater proportion than the amount of labor and materials involved.

It is particularly important to treat young orchards, as control is easier and stopping the bacteria before they get too large a hold on the tree adds to the vigor of the tree. The material used is a solution of sodium dinitrocresol, known as Elgetol, and methanol or synthetic wood alcohol. One part of Elgetol is mixed in four parts of alcohol, and this solution is painted on the exposed gall. The gall should be exposed by digging around the trees and brushing off as much of the soil as possible. The chemical is applied by chopping away part of the gall and painting it thoroughly with the solution as well as the live tissue surrounding it about one-half inch. If the galls are halfway around the tree or more, only one-third of the tree should be treated at one time, and another one-third a week or ten

Items to offer for 1946 Delivery

BERRIES, general list
PEACH TREES
FIG TREES
GRAPES, complete assortment
WHITE BIRCH, 8 to 10 and 10 to 12 ft.
DOGWOOD, Florida white
DOGWOOD, Pink-flowering
NORWAY MAPLE, 8 to 10 and 10 to 12 ft.
HORSE CHESTNUT, Red
GINKGO BILOBA
OAKS, Red Scarlet and Pink
DECIDUOUS SHRUBS in variety
CLIMBING and RAMBLER
ROSES in variety

RICH & SONS NURSERY
Rt. 4, Hillsboro, Ore.

SHERWOOD NURSERY CO.
EVERGREENS - Propagators & Growers
141 S. E. 65th Ave., PORTLAND 16, ORE.

days later, as larger applications than this may have a serious effect on the tree. The work may be done any time during the year with equally good results, although the solution works faster in the summer because of hot weather.

It is not necessary to cover the exposed gall with soil, but it may be left open and a check may be made to determine the amount of kill. On large galls it may be necessary to do this painting two or three times before the whole gall is killed. It takes anywhere from a month to several months for the gall to die completely.

W. B. B.

PORTLAND ROSE FESTIVAL.

The centennial of the treaty between the United States and Great Britain settling the northern boundary of the Oregon country will be the theme of the thirty-eighth annual rose festival, to be held June 2 to 9 at Portland, Ore. As the first postwar festival, the show is being planned on a larger scale than ever before.

The pioneer motif will be utilized in three night spectacles, including a pageant of the history of the Oregon country depicted by more than 2,000 high school children, an all-

Oregon mounted posse show, the first all-state posse performance ever attempted in the United States, and a fun-making celebration sponsored by the Portland Junior Chamber of Commerce.

National interest in the festival will be further increased since Portland has been selected for the national convention of the American Rose Society during the festival. Other features of the 1946 festival will be the fifty-eighth annual Portland Rose Society rose show, the world's largest competition for amateur growers; the air-mail rose show, and the traditional Portland junior rose festival.

TO PROMOTE TREE GROWING.

A 5-year \$450,000 educational and publicity program to stimulate the growing of trees and increase the flow of wood products to all possible consumers has been outlined by the American Forest Products Industries, Inc., New York. The program will be directed toward 3,475 farmers with 140,000,000 acres of woodland, 500,000 nonfarm owners with 133,000,000 acres of timber-growing property and industrial owners with 68,000,000 acres of forest.

Colonel William B. Greeley, chairman of the board of trustees of the American Forest Products Industries, Inc., said at a recent conference during national paper week: "We are not out to promote the use of lumber or a greater supply of trees for lumber or a greater supply of trees for any other particular product. We are out to encourage the owners of forest land through education and publicity to grow the most profitable forest crop."

J. A. HANSEN, Encinitas, Cal., has been discharged from service and plans to grow asters for the Los Angeles wholesale market. He was engaged in landscape work before entering service.

cutings, but so far have not found

MERRICK'S AMERRICKAN NURSERY, the former A. B. C. Nursery, is moving to its new location at 15212 South Vermont avenue, Gardena, Cal., April 1, according to announcement made by L. B. Merrick, head of the L. B. Merrick Nurseries, of Gardena and Whittier. It will comprise nearly five acres with property fronts on two main boulevards. The Merrick firm will install its own water system. Other improvements will include a sales office, lath houses, glasshouses, sales yard, propagation beds and houses, as well as one residence.

PORTLAND WHOLESALE NURSERY CO.

306 S. E. 12th AVENUE Avery H. Steinmetz PORTLAND, OREGON

Quality Stock

CONIFERS AND BROAD-LEAVED
EVERGREENS
SHADE AND FLOWERING TREES
FRUIT TREE SEEDLINGS
FRUIT TREES
DECIDUOUS SHRUBS
VINES AND BULBS
PORTLAND ROSES

Our shipping season to Mid-western and Eastern points is now over.

On the Pacific Coast we shall continue to ship during April or until our supply for the season is exhausted.

Write for our Catalog

A. MCGILL & SON

FAIRVIEW, OREGON

Wholesale Only

GOOD WESTERN-GROWN NURSERY STOCK

Fruit Tree Seedlings
Flowering Ornamental Trees
Shade Trees

Grown right and packed right.

Combination carloads to Eastern distributing points will save you on freight.

MILTON NURSERY CO.

A. Miller & Sons, Incorporators

MILTON-Since 1878-OREGON

Our Fruit Tree Seedlings
now graded.

We have surpluses of desirable grades of almost all varieties.

Telegraph your inquiry at our expense.

Eastern cars now being shipped.

Combination carloads to eastern distributing points at minimum freight cost.

PAUL'S SCARLET CLIMBER

One-year, own-root, No. 2 grade, at \$20.00 per 100. Cash with order. Express shipment.

PETERSON & DERING

Wholesale Rose Growers
Scappoose, Oregon

1000 Specimen Dwarf Boxwood, 18 to 24 ins.
500 Green Aucubas, 2 to 3 ft.
150 Dwarf Alberta Spruce, 2 to 3 1/2 ft.
50 Juniper Meyeri, 2 to 4 ft.

All stock with perfect fiber roots.

F. A. DOERFLER & SONS
Salem, Ore.

DOTY & DOERNER, Inc.

6691 S. W. Capitol Highway

Portland 1, Oregon

Wholesale Growers
of
General Nursery Stocks

NOTICE

Decreased production makes it impossible to book orders for new customers. For the duration the limited supply is reserved for our regular trade.

HOWARD ROSE CO.
Hemet, California

BALED SHINGLE TOW

(CEDAR SHAVINGS)

WM. A. JOHNSTON

408 Postal Bldg., Portland 4, Ore.

SHINGLE TOW

(Baled Cedar Shavings)

Immediate shipment carload lots.

MONARCH SHINGLE CO.

P. O. Box 37 North Portland, Ore.

CLASSIFIED ADS

Five lines, \$1.00,

each additional line 20 cents,
per insertion.

BERRY PLANTS

PIXWELL GOOSEBERRIES AND NEWBURGH RASPBERRIES. Newburgh Raspberries, 1 to 2-yr., \$45.00 per 1000. Pixwell Gooseberries, 2-yr., heavy, 40c each by the 100 or 1000. 10 per cent discount for cash with order.

According to our tests Newburgh is larger, more attractive, firmer and much higher in quality than Latham.

The Pixwell Gooseberry, originated by Dr. Yaeger, of the North Dakota experiment station, is on the recommended fruit list of Minnesota and the Dakotas and will soon be the leading variety. According to the North Dakota station bulletin, Pixwell bears 50 per cent more than Carrie, and the berries are about twice as large. We found this true in our tests; we tested all the leading varieties and found Pixwell the best of all. The bush is fast growing, extremely hardy; berries of super quality, sweet, easy to pick, can be eaten out of the hand, hang on long stems and stay on bushes until fall.

SCHWAB FRUIT FARM & NURSERY
220 N. Fifth St., Mankato, Minn.

RASPBERRY PLANTS 1000 # 1000
Cumberland and Logan, black,
No. 1 \$4.00 \$32.00
Latham, red, 1-yr., No. 1 6.50 60.00
Latham, red, 1-yr., medium 5.00 45.00
Latham, red, transplants 5.00

BLACKBERRIES, root cutting plants.
Eldorado and Alfred, 1-yr., No. 1 4.00 35.00
Eldorado and Alfred, 1-yr., med. 2.50 20.00

STRAWBERRIES, fresh dug.
Dunlap 1.00 7.00
Robinson and Blakemore 1.15 8.00
Premier 1.50 11.00
Dorsett, Fairfax, Catakill 1.65 12.00
Gem, everbearing 1.65 12.00
Minnesota 1166, everbearing 2.50 20.00
Mastodon, everbearing 2.50 20.00
Write for prices on Grapevines.

W. W. HUEBNER NURSERY
Stevensville, Mich.

STRAWBERRY PLANTS

If you want a reliable source of good new land Strawberry plants, I can furnish up to 3,000,000 at the following prices:

	Per 1000
Blakemore	\$5.50
Missionary	5.50
Dunlap	6.50
Ambrosia	7.00
New Robinson	7.00
Progressive Everbearing	9.00
Minnesota 1166 Everbearing	15.00

Have grown and shipped plants for 25 years. Plants will be well graded and packed. Reference: Hamilton County Agriculture Department, Courthouse, Chattanooga, Tenn.

W. H. LEAMON, Rt. 1, Coltwah, Tenn.

SENATOR DUNLAP STRAWBERRY PLANTS

Grown on new ground, state inspected. No. 1 plants, \$7.00 per 1000; \$6.00 per 1000 in lots of 10,000 or more. All plants dug fresh for each order and packed to reach you in good condition. Forty years' experience. Buy the best for less.

Terms: 50 per cent cash with order, balance on delivery, packing free. Order now. We will ship to suit you.

RATHBUN NURSERY CO.
R. 3, Angola, Ind.

CULTIVATED BLUEBERRY PLANTS

Large stock. Wholesale prices. Our prices the lowest. Large demand for Blueberry Plants. Gross returns \$1000.00 per acre for the berries. New Jersey-grown, home of cultivated blueberries. Great for store trade. Plants 1 yr. old this spring, grow a few months until fall, then will be 2 yrs. old and will be tripled in value. Large stock, 1-yr., \$22.00 per 100; 2-yr., 6 to 10 ins., \$50.00 per 100; 2-yr., 10 to 15 ins., \$80.00 per 100. Also 3 and 7 yrs. old.

WARREN SHINN, Woodbury, N. J.

STRAWBERRY PLANTS, certified by state department of agriculture. Grown on new land. We are now booking orders for spring delivery as follows: Blakemore, \$5.50 per 1000; Ambrosia, Tenn. Supreme, Premier, Dunlap, \$8.50 per 1000; Gem, Mastodon, Progressive Everbearing, \$10.00 per 1000; Minn. 1166 (named Evermore), \$15.00 per 1000. 20 per cent deposit assures you plants at the proper time next spring.

ROMINES PLANT FARM, Dayton, Tenn.

GEM EVERBEARING STRAWBERRY PLANTS

True, unmix, Iowa-grown, certified. \$14.00 per 1000; 3000 or more, \$12.00 per 1000. Nice plants, freshly dug, careful packing; prompt shipment of orders.

C. D. WRIGHT, Hamburg, Iowa.

KLEHMS' WHITE CURRANT. Largest white currant known. Sport of Red Perfection. Berries large, very prolific, not as acid as the red currant. Make a fine pink jelly. Small plants by mail postpaid, \$3.00 per 10; \$25.00 per 100; 2 and 3-yr.-old plants by express, \$3.00 per 10; \$25.00 per 100.

KLEHMS' NURSERIES, INC.
Arlington Heights, Ill.

BLAKEMORE STRAWBERRY PLANTS

Well rooted new land grown. \$7.50 per 1000, packed in damp moss. Can ship direct to your customers using your tags. A few Concord Grape Cuttings left at \$4.50 per 1000 in 10,000 lots.

IDEAL FRUIT FARM, Stilwell, Okla.

THORNLESS YOUNGBERRIES

Per 100 Per 1000
YOUNGBERRIES 5.00 45.00
STRAWBERRIES 5.00

Varities: Dunlap and Blakemore.
BENTON COUNTY NURSERY CO.
Rogers, Ark.

STREAMLINER EVERBEARING STRAWBERRIES

1000 plants, \$40.00; Minnesota, \$25.00; 500 of each variety, \$30.00. Introducer. Plants in great demand. Grow for 1947. Extraordinary catalog. Oak Hill Nursery, New Buffalo, Mich.

DUNLAP STRAWBERRY PLANTS. Real producers, young, healthy, state inspected, fresh dug, guaranteed to be good plants and to reach you in good growing condition, \$8.00 per 1000. Write for prices on larger amounts.
RILEY'S NURSERY, Concordia, Kan.

Stocky, well rooted **STRAWBERRY PLANTS.** Aroma, Blakemore, Klondyke, Dunlap, Premier, \$6.00 per 1000. Mastodon Everbearing, \$7.00 per 1000. F.O.B. McMinnville, Tenn. **SAM PACK & SONS, R.F.D. 5, Smithville, Tenn.**

STRAWBERRY PLANTS—Certified, Iowa-grown: Dunlap, Blakemore, Beaver, \$8.00 per 1000. Minnesota 1166 Everbearing, \$20.00 per 1000. Fresh plants, prompt shipment.

RIDER NURSERY, Farmington, Iowa

EVERBEARING STRAWBERRY PLANTS

1,000,000 Gem at \$12.50 per 1000. Also St. Regis (Evb.) Raspberry plants at \$30.00 per 1000. Cash. F.O.B. Hamilton, Mont.
DAVIS & DAVIS, Hamilton, Mont.

EVERBEARING STRAWBERRY PLANTS

Gem and Minnesota 1166, \$20.00 per 1000. Gemzeta, \$30.00 per 1000. Streamliner, \$40.00 per 1000.
DOLLAR NURSERY, Bloomfield, Ia.

CUMBERLAND RASPBERRY, No. 1 Tips. \$3.00 per 100, \$25.00 per 1000. No packing charge.

BLUE RIDGE GARDENS
Roanoke, Va.

STRAWBERRY PLANTS

Certified, hardy northern-grown Dunlap, \$8.00 per 1000; fresh plants. Prompt shipment.

IOWA NURSERY, Farmington, Ia.

CONCORD GRAPE CUTTINGS

200,000 well cared for since being out, \$4.50 per 1000.
BENTON COUNTY NURSERY CO., INC., Rogers, Ark.

ST. REGIS RASPBERRY PLANTS

Smaller canes, \$40.00 per 1000; larger, \$60.00 per 1000.

WARREN SHINN, Woodbury, N. J.

CUMBERLAND RASPBERRY

\$4.00 per 100, \$37.50 per 1000.

WAYNESBORO NURSERIES

Waynesboro, Va.

POTTED STRAWBERRY PLANTS

Several varieties, also Everbearing. \$9.00 per 100.

WARREN SHINN, Woodbury, N. J.

Thornless Boysenberry, Black Diamond Climbing Berry, Cumberland Black Raspberry.

WARREN SHINN, Woodbury, N. J.

ELDERADO BLACKBERRY

\$20.00 per 1000. Lucraria Dewberry, \$25.00 per 1000.

WARREN SHINN, Woodbury, N. J.

BULBS

CANNAS

Select stock 3 to 5 eyes, dormant roots. City of Portland, pink. The President, scarlet. King Humbert, red. Yellow King Humbert. \$5.50 per 100, \$50.00 per 1000. Ask for prices of Glads, Dahlias, Tuberoses, etc.

GILMORE PLANT & BULB CO., INC.
Julian, N. C.

CANNA BULBS

150,000 President, flaming scarlet, 4-ft., green foliage, carefully grown under our personal supervision, liberally graded, 2 to 5 eyes, guaranteed true to name, \$5.00 per 100; \$50.00 per 1000, \$100.00 per 2000.

MRS. CHARLIE ROBINSON, Greenville, Ga.

CREOLE LILIES

Strong, healthy, generously graded blooming size bulbs; \$20.00 per 100; attractive prices on 1000 lots; rush order for Easter.

MRS. CHARLIE ROBINSON, Greenville, Ga.

DOUBLE TIGER LILY BULBS. Per 100
2 to 3-in. cir. \$ 5.50
3 to 4-in. cir. 6.50
6 to 8-in. cir. 15.00
EVERGREEN NURSERIES, Lowell, Ind.

EVERGREENS

EVERGREEN LINERS

Hardy northern-grown

SPRUCE Per 100 Per 1000

Norway, 5-yr. T, 8 to 14 ins.	\$13.00	\$110.00
White, 5-yr. T, 10 to 14 ins.	15.00	130.00
White, 3-yr. T, 4 to 8 ins.	5.00	50.00
White, 3-yr. S, 5 to 7 ins.	3.00	25.00
Black Hills, 5-yr. T, 8 to 10 ins.	12.00	110.00
Black Hills, 5-yr. T, 10 to 14 ins.	14.00	125.00
Black Hills, 3-yr. S, 5 to 7 ins.	6.00	48.00
Colorado, 3-yr. S, 4 to 6 ins.	1.50	35.00
Colorado, 3-yr. T, 3 to 5 ins.	1.50	45.00
Colorado, 4-yr. T, 4 to 8 ins.	7.00	62.00
Black Spruce, 2-yr. S, 3 to 5 ins.	2.50	18.00
Black Spruce, 3-yr. T, 3 to 5 ins.	5.00	45.00
Black Spruce, 5-yr. T, 24 to 36 ins.	15.00	.....

Engelmann Spruce, 4-yr. T, 3 to 5 ins. 7.00 60.00

PINE

Norway, 2-yr. S, 5 to 7 ins.	2.50	16.00
Norway, 4-yr. S, 12 to 18 ins.	7.00	100.00
Austrian, 5-yr. T, 20 to 30 ins.	15.00	150.00
Mugho, 5-yr. T, 4 to 6 ins.	12.00	110.00
Western Yellow, 2-yr. S, 5 to 7 ins.	2.50	19.00
Savin Juniper, 5-yr. T, 4 to 6 ins.	14.00	120.00
Gold Plume Cypress, 4-yr. T, 6 to 10 ins.	20.00	.....
American Arborvitae, 3-yr. T, 4 to 7 ins.	5.50	45.00

GIRARD BROS. NURSERY
Geneva, Ohio

LINING-OUT STOCK

	Per 100	Per 1000
Picea pungens, 3-yr. adigs.	\$2.50	\$20.00
Picea pungens, 4-yr. adigs.	4.50	40.00
Pinus strobus, 3-yr. adigs.	3.00	25.00
Tsuga canadensis, 2-yr. transplants	8.00	75.00
Tsuga canadensis, 3-yr. transplants	11.00	100.00
Taxus cuspidata, 3-yr. transplants	27.50	250.00
Taxus hickel, 3-yr. transplants	27.50	250.00
Taxus hatfield, rooted cuttings	13.00	125.00
Taxus cuspidata, rooted cuttings	11.00	100.00
Taxus canadensis stricta, rooted cuttings	11.00	100.00
Taxus overreider, rooted cuttings	11.00	100.00
Taxus hickel, rooted cuttings	11.00	100.00
Taxus cuspidata, rooted cuttings	16.00	150.00

Only 10 per cent of Capitata furnished with Taxus orders. Shipment of rooted cuttings after May.

Acer Polymorphum and Atropa, pot-grown grafts; per 100, \$100.00.
VERKADE'S NURSERIES, Wayne, N. J.

SURPLUS EVERGREENS

Heavier Grades

Andorra Juniper, 30 to 36 ins.	\$3.50
Savin Juniper, 24 to 30 ins.	2.25
Pfitzer Juniper, 30 to 36 ins.	3.50
Virginiana Juniper, 30 to 36 ins.	3.00
English Juniper, 4 to 5 ft.	3.00
Globe Arborvitae, 24 to 30 ins.	2.00
Flame Cypress, 5 to 6 ft.	4.00
American Arborvitae, 5 to 6 ft.	3.50

Smaller Sizes

Ashford Juniper, 24 to 30 ins.	1.25
Ashford Juniper, 2 1/2 to 3 ft.	1.75
Ashford Juniper, 3 to 3 1/2 ft.	2.00
Swedish Juniper, 30 to 36 ins.	2.00
Savin Juniper, 18 to 24 ins.	1.75
Globe Arborvitae, 15 to 18 ins.	1.75
Polish Juniper, 18 to 24 ins.	1.25

Transplanted and cultivated trees. Truckloads and carlots only.

HENRY NURSERIES, Henry, Ill.

EVERGREENS—Juniper, Irish, 4 to 5 ft.

\$3.00; 5 to 6 ft., \$4.00.
Juniper, Meyer's, 24 to 30 ins., \$3.00; 30 to 36 ins., \$4.00.
Juniper, Savin, 30 to 36 ins., \$1.75; 36 to 42 ins., \$2.50.
Juniper, virginiana glauca, 3 to 4 ft., \$2.75; 4 to 5 ft., \$3.75.
Pine, Mugho, 15 to 18 ins., \$2.00; 18 to 24 ins., \$2.75.

WAYNESBORO NURSERIES

Waynesboro, Va.

EVERGREEN LINERS, many varieties: Roots of all kinds; Seeds; Shade Tree Whips; Flowering Shrubs, lining-out size; Calif. Privet; Mums; Berry Plants; Azaleas and Rhodod.; Blueberries, for the trade within commuting distance. We have the most up-to-date and largest supply of large plants of all kinds, ready dug and burlapped, ready to go; no waiting or holding up when you get here. Prices are right.

WM.E. WENTZEL EVERGREEN NURSERY
Sewell, N. J. Phone: Wenonah 49 RI

LINING-OUT STOCK

Rooted cuttings	Per 100	Per 1000
Euonymus Patens (true berried type)	\$2.50	\$20.00
Euonymus Radicans	8.00	75.00
Euonymus Carrierei	8.00	75.00

Prepaid for cash with order.
FRITCHARD NURSERIES, Ottawa, Kan.

NEW INTRODUCTION

AZALEA HINO-CRIMSON
Shows, clean, crimson-red, nonfading flower. Large, glossy, dark green foliage. Excellent grower with sturdy branches. Good forcer. A cross between Hinodegiri and Amenoa, but harder than Hinodegiri. 2 1/2-in. pots, \$25.00 per 100; 250 limit. Ready now. Cash with order only. Ask for color photo.
JOHN VERMEULEN & SON
Westbury, L. I., N. Y.

Caragana, 18 to 24 ins. Per 1000 \$35.00
Juniper, 2 to 3 ft. 40.00
Juniper Scopulorum, 12 to 24 ins. Per 100 \$22.50
TREADWELL NURSERY CO.
Great Falls, Mont.

WINTERBERRY (*Ilex verticillata*). Transplanted, field-grown 18 to 24 ins., \$3.50 per 10, \$30.00 per 100; 2 to 3 ft., \$5.00 per 10, \$45.00 per 100.

WAYNESBORO NURSERIES
Waynesboro, Va.
10,000 **HEMLOCK**, field-grown, twice transplanted, 8 to 12 in., \$20.00 per 100, \$185.00 per 1000. Booking orders for spring delivery. Also B&B sizes per truck or carload.
DAVID C. KANEFF NURSERY, RFD 3,
Marietta, O.

LINING-OUT STOCK. Grafts, cuttings and seedlings of good quality. Some new and interesting introductions of Azaleas, Taxus, Thuja, etc. Ask for our list. **JOHN VERMEULEN & SON**, Westbury, L. I., N. Y.

NATIVE AZALEAS
Snow and pink, heavy, good spread. 2 to 3 ft., \$10.00 per 100, \$75.00 per 1000.
MRS. CHARLIE ROBINSON, Greenville, Ga.

EVERGREEN LINERS
Seedlings and transplants for Spring 1946. Write for list.
SUNCREST EVERGREEN NURSERIES
Johnstown, Pa.

FRUIT TREES

PEACH TREES
30,000 Elberta Peach, 1 1/2-in. 70c; 7/16-in., 45c; 2 to 3 ft., 30c; 8 to 24 in., 20c. Also limited quantities of other popular varieties including Hale, Jubilee, Red Haven, in lighter sizes and lots of 10 or more.
WAYNESBORO NURSERIES
Waynesboro, Va.

JUMBO SIZE FRUIT TREES. Elberta Peach, 6 to 7 ft., \$9.50 per 10, \$85.00 per 100. Large Montmorency Cherry, 1 to 1 1/2-in. cal., \$12.50 per 10. Apple, assorted varieties, 1 1/2 to 2-in. cal., \$25.00 per 10.

WAYNESBORO NURSERIES
Waynesboro, Va.

HARDY GRAFTED NUT TREES
Crath Carpathian English Walnut, Black Walnut, Butternut, Heartnut. Orders for less than 10 not accepted. Price list on request.
BERNATH'S NURSERY
R. D. 1 Poughkeepsie, N. Y.

SURE CROP NECTARINE. 5 to 6 ft., \$8.50 per 10, \$80.00 per 100; 4 to 5 ft., \$7.50 per 10, \$70.00 per 100; 3 to 4 ft., \$6.50 per 10, \$60.00 per 100.

WAYNESBORO NURSERIES
Waynesboro, Va.

400 Bartlett Pears, 1 1/2-in., 400 Kieffer Pears, 1 1/2-in., \$1.00 each.
BENTON COUNTY NURSERY CO., Inc.
Rogers, Ark.

Surplus Stock
can be easily and quickly turned into Cash
Hating it in the
American Nurseryman Classified Ads.

GRASS SODS

We again solicit, after four years' absence, your GRASS SODDING contracts. No job too large or too small for us to handle.
ABBOTT'S GARDEN SERVICE
Box 208, Flushing, N. Y.

HARDY PLANTS

HARDY CHRYSANTHEMUMS
University of New Hampshire varieties. Clean well rooted cuttings for immediate shipment.

Per doz. Per 100
Nashua, bronze \$2.50 \$15.00
Sunapee, gold 2.50 15.00
Franconia, bronze-gold 2.50 15.00
*W. D. Holley, dwarf yellow 3.00 20.00
*To be finished in pots for sale about Oct. 10.
25 of one variety at 100 rate; minimum order \$5.00. Terms: Cash with order.
DECATUR FLORAL CO.
Decatur, Ind.

HARDY FERNS, tall, medium and dwarf sorts, \$6.00 per 100. Pink ponies, 25c. Marvel Everbearing Strawberries, new sweet, productive, deep rooting, good plant maker, \$3.50 per 100, \$25.00 per 1000. Complete stock otherwise. **STRAND NURSERY CO.**, Taylors Falls, Minn.

PERENNIAL SPECIALTIES

SHASTA DAISIES Per 100 Per 1000
Admiral Byrd, 2-in., potted in plant bands \$20.00 \$150.00
Beaute Niveloise, 2 1/2-in., pl. bds. 30.00 250.00
Diener's Fringed Giants, rt. divs. 15.00 125.00
Elder Improved, rt. divs. 45.00
Favorite, strong rt. divs. 15.00 125.00
Favorite, potted in 2-in. pl. bds. 25.00 175.00
Esther Read, strong rt. divs. 15.00 125.00
Esther Read, potted in 2-in. pl. bds. 20.00 150.00
G. Marconi, in 2 1/2-in. pots. 25.00
Mount Shasta, potted in 2-in. pl. bds. 25.00 200.00
Shasta Double Supreme, rt. divs. 15.00 125.00
Zinnia-flowered, rt. divs. 15.00 125.00

HARDY ASTERS Per 100 Per 1000
Beechwood Charm, 2-in. pots, \$22.50
Blue Bird, field-grown clumps. 20.00
Blue Gown, field-grown clumps. 15.00
Mrs. F. W. Fitzpatrick, field clumps. 15.00
Mt. Everest, field clumps. 22.50
Mt. Everest, 2-in. potted stock. 25.00 \$225.00
Mulberry, field clumps. 22.50
Pink Party, field clumps. 17.50
Queen Mary, field clumps. 22.50
Violetta, field clumps. 22.50
Violetta, 2-in. potted stock. 25.00 225.00
Ypres, field clumps. 17.50

HARDY CHRYSANTHEMUMS Per 10 Per 100
Apricot Glow, apricot-bronze, 2 1/2-in. \$6.00 \$40.00
Fire Glow, Oriental-red, 2 1/2-in. 6.00 40.00
Magnolia, creamy-pink, 2 1/2-in. 6.00 40.00
Pink Radiance, best pink, 2 1/2-in. 6.00 40.00
Olive Longland, sal.-pink, 2 1/2-in. 4.50 35.00
Harvest Moon, burnt-orange, 2 1/2-in. 3.50 30.00
Meadow Gold, yellow, 2 1/2-in. 3.50 30.00
Avalanche, white, field clumps. 3.50 25.00
Ruby Pompon, red, field clumps. 3.00 25.00

Send for our complete list.
FLORAL GARDENS, Eaton, Ohio

NEW AND CHOICE PERENNIALS

PENSTEMON CHERRY GLOW (Firebird). Ruby-crimson Foxglove-like blooms. Pot plants, \$3.00 per 12; \$18.00 per 100.
PYRETHRUM MRS. D. B. BLISS. New lovely single salmon-pink. Pot plants, \$3.50 per 12; \$20.00 per 100.
GALLARDIA MR. SHERBROOKE. Best large yellow. Pot plants, \$3.00 per 12; \$18.00 per 100.

HEMEROCALLIS GOLDENI. Fine orange. \$2.50 per 12; \$15.00 per 100.
HEMEROCALLIS OPHIR. One of the best yellow day lilies. \$4.00 per 12; \$25.00 per 100.
VIOLET ROYAL ROBE. Unusually large lustrous purple violets. Pot plants, \$3.00 per 12; \$18.00 per 100.

THE BEST ASTERS
Pot plants Per 12 Per 100
BEECHWOOD CHALLENGER. Crimson \$3.00 \$18.00
BLUE LAGOON. Beautiful medium blue 3.50 20.00
PALMYRA. Pure pink novelty 3.00 18.00
VIOLETTA. Deep violet-purple 3.50 20.00

CORLISS BROS. INC., NURSERIES
8 Reynard Street, Gloucester, Mass.

Established in 1 1/2-in. Wood Bands. 25 at 100 rate. Per 10 Per 100
Alyssum sax. comp. \$1.00 \$5.00
Aquila Blue Shades. 1.00 6.00
Aquila Crimson Star. 1.00 6.00
Aquila Scott Elliott. 1.00 6.00
Candytuft, semp. 1.00 7.00
Dianthus delt. erectus. 1.00 7.00
Gypsophila repens rosea. 1.00 8.00
Potentilla warrensi. 1.00 7.00
Primula Monarch. 1.00 5.00
Pyrethrum Robinson's Gnt. Mx. 1.00 5.00
Pyrethrum Robinson's Gnt. Crim. 1.00 7.00
Tritoma, Pfister's hyb. 1.00 5.00
Daisy, Admiral Byrd 2.50 20.00
Daisy, Db. Supreme 2.50 20.00
Daisy, Favorite 2.50 20.00
Daisy, Fringed Beauty 3.50 30.00
Daisy, Majestic 3.50 30.00
Daisy, Mt. Shasta 3.00 25.00
Daisy, Ophelia 3.00 25.00

PHLOX LINERS established in 1 1/2-in. wood bands. Ready last of April.
Charles Curtis 1.50 12.00
Eva Forester (Salmon Beauty). 1.00 8.00
Mrs. Harding 1.00 8.00
Prime Minister 1.00 8.00
Rheinlander 1.00 8.00
R. P. Struthers Impr. 1.00 8.00
McNINCH GREENHOUSES
St. Joseph, Mo.

Per 100 Per 1000
Hybrid Delphinium, 1-yr. \$10.00
Lily of the Valley clumps. 10.00
Platycodon, 2-yr. 15.00
Umbellatum Lily bulbs. 12.00

WHITE, MILLWOOD GARDENS
Pine City, Minn.

5000 **HARDY PHLOX**, mixed divisions. \$7.50 per 100. Good for department store trade.
CLOVERDALE GARDENS & NURSERY
R. R. 6 Peoria, Ill.

CHECK YOUR WANT LIST

ACHILLEA Filipendulina (yellow) Per 100 \$10.00
AQUILEGIA

Mrs. Scott Elliott, Crimston Star, long-spurred Blue, Snow Queen. 10.00
ASTER (Dwarf), 2-yr. divs. 12.00
Nancy, Lady Maddocks, Victor. 5.00
CHRYS. MAXIMUM (Shasta Daisy) 5.00
Alaska, Diener's, 2-yr. divs. 10.00
Coreopsis Sunburst 10.00
DELPHINIUM

Belladonna, Bellamora, B. and L. Hyb. 12.00
Pacific Hybrids, 2 Tr. 15.00
Pacific Hybrids, 1 Tr. 15.00
Dianthus Dbl. deep crimson. 8.00
GAILLARDIA, Giant Shirley. 10.00
Gaillardia, Dazzler, Grand Burgundy. 10.00
GYPSOPHILA, Oldhamiana, Paniculata 8.00
HOLLYHOCK, Chater's double Col. Sunset, Red, Rose, White, Yellow. 10.00

PLATYCODON, blue shades. 8.00
PYRETHRUM, mixed 12.00
SWEET WILLIAM, red 10.00
Herbs, Sage, Thyme. 8.00
Strong 1-year, field-grown plants. All plants are subject to prior sale.
VITTNER'S GARDENS, Manchester, Conn.

Per 100
Alyssum Saxatile Compactum. \$8.00
Aquila Longissima hybrids. 12.00
Crimson Star 12.00
Mrs. Scott Elliott's strain. 10.00
Campanula Rapunculoides 14.00
Candytuft Queen of Italy. 8.00
Chelone Torreyi 8.00
Coreopsis Double Sunburst. 8.00
Dianthus Plumarius Spring Beauty. 8.00
Digitalis, Shirley hybrid, 1st size. 4.00
Digitalis, Shirley hybrid, 2nd size. 4.00
Gaillardia Portola hybrids. 8.00
Lupinus Russell, 1st size. 8.00
Lupinus Russell, 2nd size. 8.00
Chrysanthemum September Jewels. Per 10 \$3.00
Above stock is two years transplanted, except second size. Prices F.O.B. Nursery; boxing and packing at cost.
J. J. NIGARD NURSERY, Herbster, Wis.

Per 100
Aquila, long-spurred, strawberry-pink \$12.00
Aquila Crimston Star, true stock. 12.00
Aquila longissima, a very long spur, lemon-yellow 15.00
Aquila hybrids, mixed shades. 12.00
Anchusa myosotidiflora 15.00
Anemone pulsatilla 12.00
Bellis, English daisy. 12.00
Dianthus Spring Beauty, mixed colors. 12.00
Delphinium Giant Pacific, originator's seed 25.00
Forget-me-not, royal-blue 4.00
Geum Mrs. Bradshaw. 15.00
Troilus ledebouri Golden Queen. 15.00
Primula veris hybrid, mixed colors. 15.00
Plants all twice transplanted, field-grown, bloom this season.
S. J. COOK NURSERY, Dunkirk, N. Y.

ONE OF THE BEST NEW HARDY MUMS
OLIVE LONGLAND
Large double apricot-toned salmon-pink flowers. Very free bloomer. Late September. An excellent cut flower. Height 2 ft. Potted plants, \$3.00 per 10; \$25.00 per 100. Rooted cuttings, \$2.50 per dozen; \$18.00 per 100.

Send for our new trade list featuring over 100 other new and better varieties of hardy Chrysanthemums, and a complete selection of the new and better perennials, etc.
CARROLL GARDENS
Westminster, Md.

The DELPHINIUM of TOMORROW

LYONDEL GIANT HYBRIDS
Massive Spikes—Stately—Majestic—Colorful. A new strain especially selected for its large-size flowers and wide range of beautiful colors. Doubles, semidoubles, singles. Extremely hardy.
\$4.00 per doz., \$25.00 per 100

CORLISS BROS. INC., NURSERIES
6 Reynard Street, Gloucester, Mass.

PEONIES
2 to 5-eye divisions Per 100 Per 1000
Baroness Schroeder, white. \$50.00 \$450.00
Edulis Superba, pink 27.00 250.00
Felix Crouse, red 25.00 250.00
Festiva Maxima, white 27.00 250.00
Floral Treasure, pink 27.00 250.00
Fragrans, red 27.00 250.00
Lady Leonora Bramwell, pink 27.00 250.00
Modeste Guerin 50.00 400.00
Queen Victoria, white 27.00 250.00
Sarah Bernhardt, pink 50.00 400.00
Peonies according to color. 25.00 200.00
PHIL LUTZ PEONY FARMS, Boonville, Ind.

HARDY CHRYSANTHEMUMS
Field clumps with all side shoots intact. Algonquin, Autumn Lights, Aurora, Caliph, Cydonia, Silver Moon, Yellow Dean Kay, Harmony, King Midas, Normandie, Pohatcong, Early Bronze. \$2.50 per 10
Pink, Bronze and Red Cushions, Orchid Spoon, Mrs. DuPont, Garden Queen. \$3.50 per 10
WHEATRIDGE NURSERY
Wheatridge, Colo.

HARDY PLANTS—Continued

We offer transplanted, 1-yr., field-grown plants for spring delivery as follows:

Giant Pacific Delphinium	Per 100
Coreopsis grandiflora	4.00
Calliandra grand hybrid	4.00
Campanula, double, single, or cup-and-saucer	6.00

NORTH POLE NURSERY, Cornucopia, Wis.

HARDY GARDEN CHRYSANTHEMUMS

Ember, Louise Schling, Golden Queen, Golden Bouquet and others. All early and midseason. Pompons, singles, decorative. Field-grown, 10 or more kinds my selection, 500 plants \$10.00. Large, single yellow and small golden pompons, Oct. 20 flowering, \$1.50 per 100; \$13.00 per 1000. F.O.B. MRS. R. GABLE Haralson, Ga.

HARDY POLYANTHA PRIMROSES

Vetterle & Reinelt special strain. 1-year-old, twice transplanted.

MITCHELL NURSERY

1235 Franklin St. Lebanon, Ore.

VIOLETS.

Sweet-scented blue, hardy, heavy bloomers; large plants, \$3.00 per 100, \$25.00 per 1000. MRS. CHARLIE ROBINSON, Greenville, Ga.

ROOTS

HORSE-RADISH PLANTS, state inspected, selected plants, 6 to 10 ins. long, 3/16-in. root cuttings, \$1.25 per 100, \$10.00 per 1000; 5/16-in. and up, \$1.50 per 100, \$12.50 per 1000. F.O.B. Chicago. Less 2 per cent for cash with order. These are strong, clean, healthy plants and shipped to order. RANDOLPH MARKET NURSERY, 808 W. Randolph St., Chicago 7, Ill.

ASPARAGUS—New Jersey-grown. New Jersey is the home of Asparagus. Mary Washington Asparagus roots, 1-yr., \$13.00 per 1000; 2-yr., \$16.00 per 1000. Whole Rhubarb roots, \$5.00 per 100. Horse-radish roots, \$10.00 per 1000. Globe Artichoke roots, \$10.00 per 1000. WARREN SHINN, Root Specialist Woodbury, N. J.

ONION SETS—Yellow or white, best quality, \$4.50 for 32-lb. bushel, \$4.25 in 10-bu. lots. Special prices to large dealers or commercial growers. F.O.B. cash. LAUREL NURSERY, Springfield Gardens, L. I., N. Y.

VICTORIA RHUBARB ROOTS All sizes from 1/2-in. to 2-in. Also a lining-out grade. Immediate shipment from storage; perfect condition. Will gladly quote you prices per 100 or per 1000.

C. D. WRIGHT, Hamburg, Iowa.

GIANT VICTORIA RHUBARB ROOTS ready for immediate shipment, 1/4 to 1/2-in., \$7.50 per 1000; 1/2 to 3/4-in., \$15.00 per 1000; boxing at cost.

ASHCRAFT NURSERY R. R. No. 1, Box 78 Copemish, Mich.

MARY WASHINGTON ASPARAGUS ROOTS 1-year, \$2.00 per 100; \$12.00 per 1000. 2-year, \$2.50 per 100, \$18.00 per 1000. Write for prices on quantity.

PITZONKA'S PANSY FARM, Bristol, Pa.

HORSE-RADISH 1000 1-in. cal., \$10.00 per 100. BENTON COUNTY NURSERY CO., INC. Rogers, Ark.

HORSE-RADISH—State inspected roots, 1/4 to 1/2-in., \$1.25 per 100, \$10.00 per 1000. Crowns good, \$1.50 per 100, \$12.00 per 1000. RILEY'S NURSERY, Concordia, Kan.

CHIVES Cultivated variety, \$9.00 per 1000. WARREN SHINN, Woodbury, N. J.

SEEDS After filling our contracts we have the following seeds to offer: Per lb. Kentucky Coffee Tree \$0.60 Osage Orange 1.00 Russian Olive, C.S. 1.00 Red Cedar (J. Virg.), C.S. 5.00 Redbud 2.50 Privet, Sinenese 2.00

Write for quantity prices. Will be pleased to contract for 1946 crop. RIGDON'S TREE SEEDS, Stillwater, Okla.

1946 crop PEACH PITS, southern collected. High germination. Small seeds, \$3.50 per bu.; medium, \$2.50 per bu.; large, \$2.00 per bu. Chinese Arborvitae seeds, \$3.00 per lb. Peach, Plum, Apricot, 1 ft., 50c; 2 ft., 80c; 3 ft., 40c; 4 ft., 60c; 5 ft., 70c; 6 ft., 80c. Seedling peach trees for grafting or budding, \$25.00 per 1000, \$3.00 per 100. Cash with order. Riverdale Nurseries, Riverdale, Ga.

SHRUBS AND TREES

HALL'S HONEYSUCKLE VINE (L. Halliana Japonica). Clean, young nursery-grown trans., well branched.

2-yr., No. 1 100 1000 10,000 \$14.00 \$115.00 \$950.00

2-yr., medium 12.00 85.00 775.00

2-yr., No. 3 7.50 50.00 425.00

BOHLENDER NURSERIES CO. Tipp City, Ohio, Est. 1849

LINING-OUT STOCK

This list cancels all previous ones. TERMS: Goods packed and shipped at cost and risk of buyer. Batches furnished.

KEY: BB-Balled and Burlap. R-Bare Root. B-Ball. C-Cuttings. X-For each time transplanted.

PRICES: Quoted per 100; 10 per cent off on 1000 lots; 250 at 1000 rate; 10 per cent added if less than 100 of a sort.

PAYMENT: Cash with order.

All potted and larger stock ready now except where noted by asterisk.

Bare Root and Grafted Stock available April 15, 1946.

Large Size Cuttings Used	Bare root	2 1/2-in.
Andromeda japonica, 4 to 6 ins.	\$20.00	1-yr.
japonica, 8 to 10 ins.	20.00	
*Amygdalus rosea	15.00	
*Azalea amoena	20.00	
hinodogiri	20.00	
kaem. fedora	20.00	
kaem. hybrid	20.00	
ledifolia alba	20.00	
Pink Pearl	20.00	
hinomayo	20.00	
Salmon Queen	20.00	
maxwellii	20.00	
Chamaecyparis pisifera	8.00	
pisifera aurea	10.00	
pisifera filifera	10.00	
pisifera filifera aurea	15.00	
pisifera plumosa	8.00	
pisifera plumosa aurea	10.00	
pisifera plumosa lutescens	12.00	
pisifera squarrosa veitchii	10.00	
*Cotoneaster microphylla	20.00	
*Cytisus scoparius strictus	20.00	
Euconymus rad. vegetus	20.00	
Gordonia alata	15.00	
illex crenata	2-yr., 25.00	8.00
c. microphylla	2-yr., 25.00	8.00
c. latifolia	2-yr., 40.00	20.00
c. con., bullata	2-yr., 30.00	8.00
glabra	2-yr., 25.00	8.00
Juniperus chinensis pfitzeriana	10.00	20.00
communis depressa plumosa	10.00	20.00
excelsa stricta	10.00	20.00
horizontalis	10.00	20.00
horizontalis douglasii	10.00	20.00
squamata parsonii	10.00	20.00
litoralis	10.00	20.00
Leucothoe axil. R.	8 to 12 ins.	50.00
Pachysandra, 50 in. flat, \$6.00	per 100	10.00
*Pyracantha cuneata	25.00	20.00
Taxus baccata repandens	15.00	20.00
cuspidata	8.00	18.00
cuspidata capitata	20.00	30.00
cuspidata intermedia	10.00	20.00
cuspidata nana (brevifolia)	10.00	20.00
media hickii	10.00	20.00
media hatfieldii	10.00	20.00
Thuja occidentalis	7.00	17.00
occidentalis elegantissima	10.00	20.00
occidentalis globosa	8.00	18.00
occidentalis nana	10.00	20.00
occidentalis nigra	15.00	25.00
occidentalis pyramidalis	12.00	22.00
occidentalis rosenhali	12.00	22.00
occidentalis spiralis	12.00	22.00
occidentalis wareana	12.00	22.00
plicata	12.00	22.00
*Viburnum burkwoodii	20.00	

GRAFTED STOCK

Chamaecyparis obtusa nana	45.00
Juniperus chinensis columnaris	40.00
Flowering Cherry, choice varieties	25.00
Flowering Crab, choice varieties	25.00
Flowering Peach, choice varieties	25.00
Flowering Plum, choice varieties	25.00
Lilac, choice varieties	25.00
Wistaria, choice varieties	25.00

LARGER STOCK FOR LANDSCAPE

B&B EXTRA

	Per 100
Chamaecyparis plu. plu., 15 to 18 ins.	\$100.00
pisifera squarrosa veitchii, 2 1/2 to 3 ft.	200.00
pisifera squarrosa veitchii, 3 to 4 ft.	300.00
pisifera squarrosa veitchii, 4 to 5 ft.	400.00
Cornus kousa, 3 ft.	60.00
illex cren. convexa (bullata), 6 to 8 ins.	75.00
cren. con. (bullata), 8 to 10 ins.	100.00
cren. con. (bullata), 10 to 12 ins.	150.00
glabra, 6 to 8 ins.	60.00
glabra, 15 to 18 ins.	125.00
Juniperus ch. pfitzeriana, 15 to 18 ins.	125.00
com. depressa plumosa, 15 to 18 ins.	75.00
virginiana, 3 to 4 ft.	150.00
Thuja occ. elegant., 2 to 2 1/2 ft.	150.00
occidentalis elegantissima, 2 1/2 to 3 ft.	200.00
occidentalis elegantissima, 3 to 4 ft.	300.00
occidentalis nigra, 15 to 24 ins.	100.00
occidentalis pyramidalis, 2 1/2 to 3 ft.	200.00
occidentalis pyramidalis, 3 to 4 ft.	250.00
occidentalis pyramidalis, 4 to 5 ft.	325.00
Viburnum burkwoodii, 15 to 18 ins.	150.00
burkwoodii, 2 to 3 ft.	250.00

We can offer these plants in large quantities.

For 10,000 price range, ask for quotations.

We Place Quality Before Quantity.

WESTBURY ROSE CO., INC.

Henry van den Hoorn, Pres.

Westbury, L. I., N. Y.

Phone: Garden City 2576

NURSERY STOCK

We offer for spring planting.

	Per 100
Acer palmatum, grafted, in variety:	
Atropurpureum nigrum, 2 1/2 to 3 in.	\$125.00
Atropurpureum, 15 to 18 ins.	
Ampelopsis veitchii, strong plants, 2 to 2 1/2 ft.	30.00
Azalea, Hardy Varieties:	
Mollis, yellow, salmon, orange, 12 to 15 ins.	75.00
Ghent, named, single, double, 15 to 18 ins.	125.00
Japanese, Hinomayo, Macrantha, Mizomigiri, Yodogawa, 10 to 12 ins.	175.00
Chamaecyparis obtusa nana gracilis, 12 to 15 ins.	125.00
Daphne mezereum rubrum, 1 1/2 to 2 ft.	125.00
Hydrangea P. G., planting size.	18.00
Kalmia latifolia (Mountain Laurel), 8 to 12 ins.	40.00
Laburnum vossii, strong plants, 2 1/2 to 3 ft.	65.00
Magnolia soulangeana, pink, 1 1/2 to 2 ft.	100.00
Loianum, rose-purple, 12 to 15 ins.	120.00
Alexandrina, cheerful pink, 1 1/2 to 2 ft.	120.00
Conspicua, pure white, 1 1/2 to 2 ft.	150.00
Norbertiana, reddish-purple, late, 1 1/2 to 2 ft.	120.00
Rustica Rubra, crimson-red, 1 1/2 to 2 ft.	120.00
Soulangeana niera, maroon, 1 1/2 to 2 ft.	120.00
Wilsoni, white, late, 1 1/2 to 2 ft.	150.00
Pieris floribunda, 12 to 15 ins.	200.00
Pieris japonica, 12 to 15 ins.	175.00
Rhododendron Hybrids (grafted plants), 9 to 12 ins.	75.00
12 to 15 ins.	125.00
15 to 18 ins.	150.00
Rho. Oid. (with flowering buds), 15 to 18 ins.	200.00
18 to 21 ins.	250.00
21 to 24 ins.	300.00
Album grandiflorum, Caractacus, E. S. Rand, Dr. Drenselhuys, Evermann, Ignatius Sargent, Mrs. P. Den Ouden, Mrs. C. S. Sargent, Prof. F. Bettes, Roseum Elegans, etc.	
Syringa vulgaris, best French variety, 18 to 24 ins.	40.00
Taxus repandens (spreading), 12 to 15 ins.	125.00
Taxus cuspidata upright (capitata), 12 to 15 ins.	60.00
15 to 18 ins.	90.00
18 to 24 ins.	125.00
Teuga canadensis (Domestic Stock), 6 to 9 ins.	\$100.00
9 to 12 ins.	150.00
12 to 15 ins.	220.00
15 to 18 ins.	280.00

All of the above nursery stock is bare root, processed and packed to encourage early root action. These plants may be planted with perfect assurance of success.

For a quarter of a century, the plant-loving people of America have been deprived of choice varieties of plants, including Roses formerly imported from Europe.

For an indefinite and possibly short period, the quarantine has been modified. This enables us to obtain the choice assortment of plants from our relatives in Holland. These plants have been carefully grown and have been packed and processed according to our instructions.

ROSES

Field-grown, budding, Rugosa, trimmed back for easy handling and potting.

Per 100

Hybrid Teas, assorted, \$50.00

Red, General MacArthur, Hadley, Etoile de Hollande

Pink, Cynthia, Lady Sylvia

Yellow, Westfield Star

White, Mme. J. Bouche

Bicolor, Pres. Hoover

Orange-apricot, Condessa de Santiago

Named varieties, assorted colors, 45.00

Climbing Roses

Paul's Scarlet, Dr. Van Fleet, 55.00

Climbing Caroline Testout and other everblooming varieties, 65.00

TERMS: Packing free of charge for cash with order. Shipping from New York City to destination at cost of purchaser.

Certificate by U.S.D.A. furnished.

Prices quoted per 100; 10 per cent off on 1000 lots; 250 at 1000 rate; 10 per cent added for less than 100 of a kind; not less than 10 of a variety sold.

Payment. All or 50 per cent with order, balance C.O.D.

Subject to strikes, etc., and to being unsold.

WESTBURY ROSE CO., INC.

Henry van den Hoorn, Pres.

Westbury, L. I., N. Y.

Phone: Garden City 257.

LOMBARDY POPLAR

6 to 8 ft., \$4.00 per 10; \$35.00 per 100

8 to 10 ft., \$5.00 per 10; \$45.00 per 100

WAYNESBORO NURSERIES

Waynesboro, Va.

WHITE FRINGE TREE

2 to 4 ft., \$4.00 per 10; \$35.00 per 100

4 to 5 ft., \$5.00 per 10, \$45.00 per 100

WAYNESBORO NURSERIES

Waynesboro, Va.

We offer this choice stock for immediate sale in units of 50, 100 or carlots.

Pittsner Junipers, 2 to 3 ft.	Each
English Juniper (communis), 4 to 5 ft.	2.50
English Juniper (communis), 5 to 6 ft.	3.00
Pyramidalis Arborvitae, 3 to 3 1/2 ft.	2.50
Andorra Juniper, 2 to 3 ft.	1.50
Chinese Compacta Arbv., 2 to 3 ft.	1.50
Cotoneaster francheti, 3 to 4 ft.	1.25
Barberry Thunbergi, 18 to 24 ins. bare root	.35
White Dogwood, 4 to 5 ft.	3.00
White Dogwood, 5 to 6 ft.	3.00
Pin Oak, 5 to 6 ft.	1.00
Pin Oak, 6 to 8 ft.	1.50
Willow Oak, 5 to 6 ft.	1.00
Willow Oak, 6 to 8 ft.	1.50
Chinese Elm, 5 to 6 ft.	1.00
Chinese Elm, 6 to 8 ft.	1.50
American Elm, 5 to 8 ft.	1.50
All plants properly trimmed, finished, ready for sale.	

TRITSCHLER'S NURSERY
2816 West End Ave. Nashville 6, Tenn.

100 American Hazel Nuts, 3-yr. adigs, 18 to 24 ins., 20c	
15 American Hazel Nuts, clumps, 4 to 6 ft., 75c	
100 White Dogwood, 3 to 4 ft., 75c	
40 Chinese Elm, 3 to 5-in. cal., \$4.00	

Elms at nursery on your truck.
C. A. STEVENSON NURSERIES
239 Park Ave. South Haven, Mich.

AMERICA'S MOST LOVELY ORNAMENTAL TREES — Liquidambar styraciflua (Sweet Gum), Red Maple, Red Oak, Red Cedar, Black Gum, Magnolia Glauca, Pine, Flowering Crab Apple, American Elm and Snow Fringe Tree (Graybeard). No. 1, 2-yr., \$15.00 per 100; No. 1, 3-yr., \$20.00 per 100; quantities for sale.

MRS. CHARLIE ROBINSON, Greenville, Ga.

Buxus Suffruticosa	Each Per 10
200 18 ins. high	\$2.00 \$1.90
300 20 ins. high	2.40 2.30
500 22 ins. high	3.90 3.80
100 24 ins. high	6.25 6.10

Price High, F.O.B. Nursery.
BOXWOOD GARDENS
Box 590, High Point, N. C.

200,000 BUXUS
Suffruticosa, a true dwarf (Martha Washington), carefully grown under our own personal supervision. 7 yrs., perfect, round heavy compact top, best for potting, 10 to 12 ins., \$50.00 per 100, 35c ea. in 1000 or more lots.

MRS. CHARLIE ROBINSON, Greenville, Ga.

HALL'S HONEYSUCKLE (Lonicera Halliana Japonica), strong No. 1, 2-year, field-grown, 3 to 4 leads, 18 to 20 ins.; carefully graded, selected plants, \$4.00 per 100, \$30.00 per 1000; lighter plants, \$20.00 per 1000. Immediate shipment.

MRS. CHARLIE ROBINSON, Greenville, Ga.

FLOWERING SWEET SHRUB
(CALYCANTHUS FLORIDUS).
A large-leaved shrub with spicy, fragrant chocolate-colored flowers; 2 to 3 ft., \$15.00 per 100; 3 to 4 ft., \$20.00 per 100. Quality stock.

MRS. CHARLIE ROBINSON, Greenville, Ga.

ROSES, 2-yr., No. 1, assorted varieties, including Editor McFarland, Red Radiance, Pink Radiance, Paul's Scarlet, Paul Neyron, Mrs. Chas. Bell, Frau Karl Druschki, \$7.50 per 10, \$55.00 per 100.

WAYNESBORO NURSERIES

Waynesboro, Va.

DOGWOOD
Cornus Florida, mammoth-flowering white, good spread, 2 to 3 ft., \$10.00 per 100; 3 to 4 ft., \$15.00 per 100; 4 to 5 ft., \$25.00 per 100; 5 to 6 ft., \$30.00 per 100; attractive price list on 1000 or more lots.

MRS. CHARLIE ROBINSON, Greenville, Ga.

100 CHINESE ELMS

1 to 3-in. diameter and 8 to 12 ft. high, \$150.00 as they stand, buyer digs them.

PAGE'S GREENHOUSE, Staunton, Ill.

Each
Spiraea Vanhouttei, 18 to 24 ins. \$0.15
Spiraea Vanhouttei, 2 to 3 ft.30
W. M. DIVINE NURSERY
Geneva, N. Y.

Container-grown CAMELIAS of Merit
Write for List of
the Best from the Far West.

J. S. TORMEY

Tormey's Gardens, Temple City, Cal.

Nandina, 2-yr., 2 1/2 to 3 ft.	Per 100
Yaupon, Cherry Laurel, 18 to 24 ins.	\$4.50
Ligustrum Japonicum, wax-leaved, 10 to 20 ins.	6.00
Sabal Palms, 3-yr.	6.00
Wistaria, purple, 3-yr.	10.00

PIGFORD NURSERIES, Lumberton, Miss.

FLOWERING CRABS, assorted varieties, 2 to 4 ft., \$6.50 per 10, \$50.00 per 100; 4 to 6 ft., \$8.50 per 10, \$75.00 per 100; 6 to 7 ft., \$15.00 per 10.

WAYNESBORO NURSERIES

Waynesboro, Va.

CHINESE ELMS

2 to 3 ft.	\$0.10
3 to 4 ft.	.15
4 to 5 ft.	.20
5 to 6 ft.	.25
6 to 8 ft.	.40

BLUE RIDGE GARDENS, Roanoke, Va.

RHODODENDRONS

Rhododendron ponticum understock for grafting in the Fall 1946. Booking now; ask prices.

WESTBURY ROSE CO., INC.
Westbury, L. I., N. Y.

AMERICAN AND CHINESE ELM
2 to 4-in. Nice stock, large quantity.
Write us your requirements.

MERTEL NURSERY
Peru, Ill.

MISCELLANEOUS

35,000 Sycamore Trees, also Shrubs; 100,000 8-in. cuttings; 10,000 lbs. Kentucky Coffee Beans, 25c per lb.; Orange Orange, 70c; Sycamore Platanus, 40c; Allanthus, 50c; Regal and Amur River North Privet, 70c; Catalpa, 70c.
SCHROEDER NURSERY CO.
Granite City, Ill.

DECORATIVES

PINE CONES
Large Loblolly Pine Cones
\$7.50 per 1000.
DIAMOND STATE EVERGREEN CO.
Milton, Del.

SUPPLIES

FLATS
ORDER NOW
Don't Be Disappointed
Immediate Shipment
Flats in Stock

1 1/4 x 1 1/4 x 3, K.D.	10c
1 1/4 x 2 1/4 x 3, K.D.	11c
1 1/4 x 1 1/4 x 3, K.D.	12c
1 1/4 x 2 1/4 x 3, K.D.	13c
1 1/4 x 2 1/4 x 3, K.D.	14c
1 1/4 x 1 1/4 x 3, K.D.	15c
1 1/4 x 2 1/4 x 3, K.D.	16c
1 1/4 x 2 1/4 x 3, K.D.	17c

Any size Flats made.
Check with Order
Local deliveries can be made by truck.
FLORIST FLATS SUPPLY CO.
1440 West Farms Rd. Bronx, N. Y.
Tel. Dayton 3-9507 or Tivoli 2-1815

STAKES—Bamboo
Carefully Selected—Dyed Dark Green.

Uniform Pencil Thickness	
No. G-21 3 ft. Bale of 2000	\$10.95
No. G-22 3 1/2 ft. Bale of 2000	13.90
No. G-23 3 ft. Bale of 2000	16.65
No. G-24 3 1/2 ft. Bale of 2000	19.45
No. G-25 4 ft. Bale of 2000	22.25

Dyed Green—Medium Heavy.
No. G-41 3 ft. Bale of 1000 \$ 9.85
No. G-42 3 1/2 ft. Bale of 500 7.75
No. G-43 4 ft. Bale of 500 6.70
No. G-44 5 ft. Bale of 500 11.95
No. G-45 6 ft. Bale of 500 12.75
No. G-46 7 ft. Bale of 200 7.70

We cannot break bales.
Quantity discounts, 10 to 24 Bales, 5 per cent.
25 Bales or more, 7 1/2 per cent.

SCHUPP SUPPLY CO., Wilmette, Ill.

KNOCK-DOWN FLATS.

Made from a good grade of Southern Yellow Pine, since Cypress is not available.

Standard specifications, inside measurements.	
16x12x2 1/2	\$11.25 per 100
16x14x2 1/2	14.25 per 100
20x14x2 1/2	14.00 per 100
30x14x2 1/2	16.25 per 100
22 1/2 x 15x2 1/2	16.75 per 100
22 1/2 x 15x2 1/2	18.00 per 100

All other sizes quoted on request. Prices F.O.B. Birmingham.

We are manufacturers, not jobbers. Freight to any point is a small item per Flat. Our Flats are the best. Why pay more? Our quality guaranteed. Prompt shipment, any quantity. Attach check to order.

HIGHTOWER BOX & TANK CO.

Birmingham, Ala.

TUNG NUT MEAL

100 lbs.	\$ 2.25
500 lbs.	10.00
2000 lbs.	39.50

Pure tung oil nut press cake meal. A more complete plant food than cottonseed meal. Fertilizer companies buy it by the carload from the oil mills in this section. They let very little get by them to find its way on the market in a pure state.

Nitrogen, 5.9 per cent; phosphoric acid, 1.97 per cent; potash, 1.41 per cent; moisture, 6 per cent.

STOVALL NURSERY

Leakesville, Miss.

CYPRESS FLATS

For immediate shipment.
20x15x3, inside measurements, 28c each.
Packed k.d., 10 to bundle.

Sides and bottoms, full 4-in.; ends, 3-in.

CYPRESS PLANT STAKES, POINTED
1x1-in. x 4 ft., 50 pieces to bundle.
\$3.00 per bundle.

YOHO & HOOKER, YOUNGSTOWN 1, O.

ATTENTION LANDSCAPERS

Your best advertisement is the work you have done. Permanently identify your job by using our pressed stone tablets bearing your own name or trade-mark. Label your plantings. They are your creations and you are entitled to credit for them. Write for particulars.

RICHLAND GARDENS

Martin, Tenn.

PROFIT WITH PERF-O-RAIN.

Rain when you want it—low pressure—rectangular strip watered—No overlap—No sprinkler heads or other gadgets—Portable lightweight pipe—Long life. Write for free folder. W. R. AMES COMPANY OF FLORIDA, 2906 E. Broadway, Tampa 5, Florida, or W. R. AMES COMPANY, 180 Hooper St., San Francisco 7, Calif.

STEEL TUBULAR STAKES

Place orders now to meet your early spring sales, together with your own nursery requirements. 3/4-in. copperized to prevent rusting. 2c per ft.; 1/2-in. plain, 3c per ft.; 1/4-in. plain, 4c per ft.; less 20 per cent. Made up in any length. Samples mailed.

H. HOHENBERGER, Box 2537, Monroe, N.Y.

SOIL HEATING EQUIPMENT.

Designed by a nurseryman and engineer for commercial propagation. Cable, soil thermostat and pilot lamp to heat 20 sq. ft., \$9.70; 40 sq. ft., \$12.10; 60 sq. ft., \$14.50; 80 sq. ft., \$16.90; 160 sq. ft., \$24.30, F.O.B. Seattle. L. N. ROBERSON CO., 1539 E. 103rd St., Seattle 55, Wash.

RUBBER. Your Rubber requirements are important. Know where to get it when you want it. Belts, rubber bands, boots, coats, gloves, hose, spray bulbs, aprons, budding strips. Get our price sheet and catalog today.
BROADWAY RUBBER MFG. CO.
Louisville 3, Ky.

CEDAR STAKES last a long time. Price per 100: 5-ft., \$15.00; 5-ft., \$15.00; 4-ft., \$11.00; 3-ft., \$9.00; 2-ft., \$7.00. Shipped F.O.B. on cash with order. J. MILLER POTTER NURSERY, East Springfield, N. Y.

GIBALTAR Frost Covers pay for themselves. Economical, long-lasting, ideal for windbreaks, 6 ft. wide; 60 ft., \$13.75; 100 ft., \$26.00; 150 ft., \$39.00. NEW AMSTERDAM IMPORT, 122 Chambers St., New York 7, N.Y.

PRINTING
Letterheads, billheads, statements, cards, envelopes, tags, blotters, folders, catalogs, samples. Send copy for estimate.
J. GARLAND HILL, Dept. A, Seaford, Del.

SEED STORE FIXTURES

Bins, Cabinets

WALKERBILT

Penn Yan, N. Y.

COTTONETTE Squares are best for balling. Saves time and twine. All sizes in stock. Write NEW AMSTERDAM IMPORT, 122 Chambers St., New York 7, N. Y.

WANTED

WANTED—Rooted lining-out shrubs: Althaea, named varieties; Cydonia Japonica, upright red; Deutzia Scabra Rosea, Lonicera Tatarica Rosea, Philadelphus Virginialis, Philadelphus Coronatus, Spiraea Anthony Waterer, Spiraea Thunbergi, Persia Lilac, Spiraea Vanhouttei, Weigela Eva Rathke, Weigela Rosea.
T. G. OWEN & SON, INC., Columbus, Miss.

WANTED

Clematis, 2 1/4-in. pots, or larger.
Jackman, Henryl, Mme. Andre.
MAURER FLORISTS
2600 Lucas Hunt Rd., St. Louis 20, Mo.

WANTED

Used Rototiller or Ariens-Tiller.
ALDO R. PAOLANO
163 36th St.
Barberton, Ohio

FLORADALE, operated by Otis

M. Eastman, Cleveland, O., has been moved to Los Angeles, Cal.

D. W. BRANCONIER and Constine

Cella have opened the Puget Sound Nursery & Land Architect Co. at 3805 Southwest Thirtieth avenue, Seattle, Wash.

HAVING received an honorable

discharge from the army after four years of service, DeWitt Rule is re-entering the landscape business at Metuchen, N. J.

WESTERN PENNSYLVANIA SPRING MEETING.

The Western Pennsylvania Nurserymen's Association held its spring meeting, February 28, at the Webster Hall hotel, Pittsburgh. This meeting was well attended, with over sixty men present. One of the highlights was the introduction of eleven new members, a record for one meeting.

After a short business session, the meeting was turned over to the program committee, Walter Morrow acting as chairman.

Two colored movies were shown, "Trees and Homes" and "White-pine Blister Rust."

Arthur D. Williams, physical director of the East Liberty Y.M.C.A., described conditions in Iceland and Australia during the war. Mr. Williams served with the Red Cross as club director in Iceland for two years and one year in Australia.

After dinner, President Stanley Leonard introduced the guests, Gene Ifft, county agent, Venango county; Robert P. Meahl, Pennsylvania State College, and Russell Champion, Perry, O.

The talk about wills by Eugene O. Kane, clerk of Orphans' court, Allegheny county, proved interesting, especially as he explained many points about will making by telling of actual happenings in court. Mr. Kane's ready wit made his talk entertaining.

Prof. Alex Laurie, head of the department of floriculture at Ohio State University, spoke on new insecticides and their uses and also fertilizers and feeding. The keen interest in Professor Laurie's talk was evident, and he was kept on his feet well over an hour answering questions and debating the many points brought up by the members present.

The last entertainment feature was several movies, "Trees to Tame the Wild" and "Stop Forest Fires."

The meeting was concluded with a short business session.

Louis E. Wissenbach, Sec'y.

HONOR OLD EMPLOYEES.

The Conard-Pyle Co., West Grove, Pa., gave a testimonial dinner March 14 at the West Grove Methodist church for present employees, their wives or husbands and others closely associated with the company, in honor of employees who had been with the company for ten or more years. Twenty-one persons were honored, with a record of service from eleven to forty-seven years,



FOR ACID SOIL PLANTS **RELIANCE** *Azalea and Camellia* **SPECIAL**

Already famous for use on *Azaleas* and *Camellias*—Fast becoming the leading plant-food for use on *Magnolias*, *Hollies*, *Gardenias*, *Rhododendrons*, *Kalmia*, *Tea Olives*, *Blueberries*, etc.

Cultural Booklet—*Azaleas and Camellias*—will be sent upon request.

The RELIANCE FERTILIZER CO.
SAVANNAH, GEORGIA

Compiling a New Nursery List

By L. C. CHADWICK

- I. WOODY DECIDUOUS ORNAMENTAL PLANTS
- II. SELECTION OF NARROW-LEAVED EVERGREENS
- III. SELECTION OF BROAD-LEAVED EVERGREENS

Three series of articles on superior varieties of trees, shrubs, vines and ground covers, reprinted from the American Nurseryman.

Describe and discuss the best plants among trees and shrubs in various sizes, as well as vines and ground covers.

List uses, culture, characteristics and growth habits, to make easy selection of suitable varieties for various landscape purposes.

Sources of supply of selected plants indicated in list of nurseries.

Set of 3 booklets, \$1.00

AMERICAN NURSERYMAN 343 So. Dearborn St., Chicago 4, Ill.

the record being held by Louis A. Wintzer.

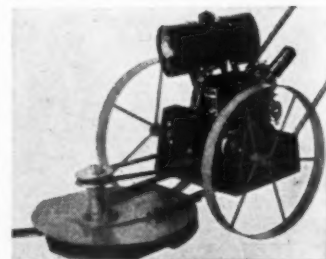
Each of the employees received a specially designed gold pin, star-shaped, with a rose in the center in high relief. For those of over twenty-five years' service a tiny ruby was added in the heart of the rose. A cash gift was given each person, also.

On the same evening, all friends of the Conard-Pyle Co. were invited to the Roslyn theater, West Grove, when pictures were shown of rose events and awards were made to the old employees.

HENRY E. WOOD, Webster, N. Y., is now operating Woodlawn Farms, an evergreen nursery. The business was operated under the name of Edward J. Wood & Sons from 1920 to 1932.

DARLING'S EVERGREEN ACRES are a new business opened at Ionia, Mich., by Earl W. Darling.

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Anywhere - REGARDLESS OF HEIGHT

No Delicate Parts to Cause Constant Breakdowns
Ideal for Nurseries, Orchards, Parks, Estates, Institutions, Cemeteries, etc. Special design permits machine to operate parallel to fences and cut right up to them. It will even cut underneath fences, rails or benches . . . around trees, bushes or shrubs . . . on slopes or in ditches . . . or along walls, curbs or walks. Inexpensive to operate, it is powerful, low-priced, very portable and easy to handle. THE "O-K" MOWER HAS SATISFIED HUNDREDS . . . IT WILL SATISFY YOU!

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SITUATION WANTED—Experienced landscape saleswoman, young, capable, thorough understanding of nursery management, successful sales record, ability to design and supervise installation, interested in connection with an eastern nursery. Address Box 427, care of American Nurseryman.

HELP WANTED—Veteran with nursery office experience to train under G. I. Bill benefits to become office manager in a large Virginia nursery. Prefer man with college training. Address Box 428, care of American Nurseryman.

HELP WANTED—Veteran with some practical nursery experience to train under G. I. Bill benefits to propagate and grow lining-out stock. Address Box 429, care of American Nurseryman.

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FOR SALE—An opportunity for young nurseryman. 25 acres with modern home on America's main street, highway 75, in the heart of Texas' black land belt, between Dallas and Houston, near Ennis. Has everything, a job, nice home and income limited only by ability. Price, \$25,000.00.

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THIRD PRINTING

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You will want a copy yourself and one for each of your employees. Suitable good-will token for customers—or put copies on your counter for sale.

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343 S. Dearborn St. Chicago 4, Ill.

HELP WANTED

Experienced nurseryman and sales manager for our branch nursery and garden shop.

Must know perennials and all kinds of nursery stock. Must know how to grow and propagate same. A fine opportunity with a future for the right man. Living quarters on place. State all details as to your experience and references in your first letter.

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HELP WANTED

Experienced tree surgeon wanted at once. Applicant must be familiar with all types of tree surgery, root feeding, pruning, etc. Permanent position under ideal working conditions. Applicant must submit references. Address Box 423, care of American Nurseryman.

HELP WANTED

Landscape architect who can call on customers, make planting suggestions, draw plans; only those with college training need apply; permanent, year-around work.

Landscape foreman who knows plant materials, can handle men, read plans, execute work; permanent, year-around work.
JAN B. VANDERFLOEG LANDSCAPE SERVICE
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Young working foreman with sales ability for well established nursery business in midwest area. Good salary and housing. Give experience and references in first letter.

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Landscape Contractor-designer to manage prominent landscape business. Excellent opportunity for high type person with direct contact experience. Write, stating previous experience, references, salary expected. Att. J. M. **ANTHONY**, 2095 E. 103rd St., Cleveland 6, Ohio.

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For party that wants to go up in the world this 3-acre nursery and landscaping business combined. 14,000 nursery stock plantings. 5,000 in camellias, azaleas, rhododendrons, balance in evergreens and flowering shrubs; 10 per cent landscape numbers, 90 per cent new stock plants. This is not an old overgrown nursery; all plants 1, 2, 3-yr. stock. Also fruit trees, all tools, supplies and equipment for landscaping goes. 7-room residence, furniture, Hot Point refrigerator, etc.; barbecue and summer house, store room, chicken house, other bldgs.; slat house 60x100 ft. Garden spot, family orchard, plenty of peaches, asparagus. I bought and paid for this nursery in 30 months. Is free and clear with title insurance. River adjoining property for irrigation. No failure on water here. Write owner direct or phone Kent, Wash., 338 W. Have other interests; price, \$13,500.00.

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66 acres, about 5 acres in nursery, all young and salable stock, best varieties, balance farm ground, pasture and some timber. Pre-Revolutionary War house, 9 rooms, electric heat, water. Small tenant house, old outside bake oven, barn and other buildings. Cement highway, good location for any business. 30 mi. to Philadelphia. Price \$18,000.00. Stock at inventory.

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100-acre nursery. Acres in spruce, pines, hedges, shrubs and shade trees. Modern home, tenant house, barns, sheds. Large warehouse on C. M. & St. P. R. R., with office and salesrooms. Privately owned and operated for 30 yrs. Well located on good highways. In prosperous farming community and convenient to Madison. South central Wisconsin.

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Eastern Ohio Nursery. 115 acres, well established wholesale and dealer business, well equipped with residences, barns and greenhouses; sprinkler system, storage, etc. Address Box 422, care of American Nurseryman.

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50x50 storage, residence, 40 acres of land, office, barn, tenant house, and all nursery stock on land, tools, implements, team, located on main highway out of Muskogee, Okla., \$12,500.00; half cash.

SNEED NURSERY COMPANY
P.O. Box 798 Oklahoma City 1, Okla.

SELECTING MEN FOR SELLING.

[Continued from page 12.]

cause he lacks the qualities demanded by the job, it is a direct reflection on the judgment of the man who hired him. A sales manager's basic selection equipment is good judgment and experience. A sales manager is successful in selecting sales manpower in direct proportion to the number of mistakes he can side-step.

A firm employing 500 salesmen will not be greatly affected by hiring one wrong man, but the firm employing five men may be seriously affected by such a mistake. Yet the large firm has the resources to hire a sales manager who is paid for knowing his job, whereas the small firm of necessity must place this responsibility in the lap of a man, perhaps the owner, whose experience may be largely in the production end of the business and who may be ill equipped to select the good salesman he needs so badly. The sales manager of the large firm has his troubles, too. The difference between these two sets of problems is largely a matter of degree. Basically they are identical.

How are you going to attack the situation? I do not know a perennial from an annual about the nursery business, but I should like to present some thoughts on mechanics of procedure for your consideration:

1. Remember the old saying, "If we do not hang together, we will hang separately." You have solved the problem of growing your plants by cooperative effort. You must attack your selling problem in the same way. Attack the problem by group action as well as by individual action. An individual, even if he halfway solves his own problem, has done it the hard way, and he has not contributed to the growth of the industry as a whole, upon which his own future individual progress depends to some extent.

2. Your state and national organizations offer the perfect mediums. If distribution is a major problem in your industry, then certainly your state and national association must have committees working on distribution.

If a number of you have to hire salesmen, then a subcommittee should work on this specific phase of distribution. The members of this subcommittee should be those among you who, by experience and inclination, have some familiarity with the common problem.

3. Workable ideas and procedure used by your members should be solicited by, and channeled into, this subcommittee, from which they can be passed on to those members who

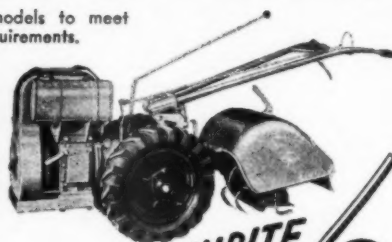
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Three models to meet your requirements.



Here is the perfect all-purpose tilling and cultivating combine for the nurseryman. Ariens-Tiller harrows as it discs as it plows. ONE operation produces a properly prepared seed bed, thoroughly aerated with pulverized soil, shredded and evenly mixed. No large soil chunks to retard plant growth. Ariens-Tiller can be operated in wet or dry seasons and handles easily in small spaces.

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WHERE AND HOW TO USE TRANSPANTONE

Treat broad and narrow leaf evergreens, deciduous trees and shrubs. Soak the soil around the roots when planting or soak bare-root plants overnight in a barrel of the solution before replanting. The treatment will not interfere with proper hardening of the wood before winter.

It pays to use Transplantone solution when transplanting shrubs and trees. Transplantone-treated shrubs and trees suffer less from shock and wilt, fewer of them die, *more* of them start active growth *sooner*.

A LITTLE TRANSPANTONE GOES A LONG WAY

One pound of Transplantone makes 160 gallons of solution for treatment of trees and shrubs or 1600 gallons of solution for seedlings and soft-tissued plants.

Reg. U. S. Pat. Off.
TRANSPANTONE

A 3-oz. can of TRANSPANTONE costs \$1.00

A 1-lb. can of TRANSPANTONE costs \$4.00

Write today for our special terms to nurserymen.

AMERICAN CHEMICAL PAINT COMPANY
Ambler, Pa.

need them. If your industry is interested in investigating scientific tests for screening prospective salesmen, for instance, could it not be done more easily by a small group than by 200 individuals, each going his own way without knowing where he is going?

These suggestions admittedly pertain to a long-range view. If I were sitting where you are, I should no doubt be thinking, "That's all very well, but I've got to hire a salesman next week, and a subcommittee will not help me right now."

All right, we'll get down to brass tacks with a few suggestions for the fellow who has only a few salesmen and who is not a sales manager.

1. Do not try to look at a man and decide whether or not he is a salesman. Do some real thinking about what qualities in a man are necessary to fill your sales job. Get these qualities down in black and white. Then try to match an applicant with your standard. Remember, the more you compromise with the standard, the more you invite trouble.

2. It is a good idea to ask for a letter of application. Your salesman may have to write to your customers and you can see how the applicant expresses himself on paper. Do not try to read character from handwriting.

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Containing 500 illustrations, including 82 color plates

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Written in nontechnical language, covering the whole subject of evergreens (conifers). Written and published by America's largest and oldest evergreen nursery with a background of 90 years' specializing in evergreens.

Bound in two colors of cloth, this book contains 240 pages, 8 1/2 x 11 inches.

Hundreds of special drawings have been made illustrating culture, propagation, uses and diseases of leading varieties of evergreens. More than 500 illustrations, 82 of which are in color. The items illustrated include important leading evergreens of all families growing in all sections of the country.

This is not a revision of the old book, "Hill's Book of Evergreens," published in 1936, which is now out of print. It has been completely rewritten, greatly improved and enlarged, and is unquestionably the most complete book on this subject ever published.

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Approximately 300 feet to pound and 140-pound breaking strength.

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ing, however, because even the experts cannot agree on their analyses.

3. Arrange for a personal interview. By the use of directed questions, find out what you want to know about the applicant. Get several references from him and ask for names and addresses of past employers. Have him meet some of your other salesmen, or other men in your firm who can help you to size him up. Do not hire him on the first interview. If he looks good, arrange for a second interview soon.

4. Investigate. Check on his references. Contact his past employers and check with them the qualities your job demands in the man. Consult the men in your organization who met and talked with the applicant; then sit back and evaluate the picture. Jot down the items to be further discussed with him.

5. During the second interview, check your first impressions, and discuss the items that must be cleared up. Do not discuss the job in detail with him until you have decided to hire him. If you are still in doubt at this point, you'd better not hire him. However, if your impressions, together with the investigation, discussion and analysis, all point to him as the man you want, get into detail about the job and hire him.

This procedure will not solve your selection problems, but it will help to organize your selection method and it will help you to do the things that have to be done in hiring salesmen. You still have to live with your own judgment and decisions.

Here are some general considerations to keep in mind:

1. All things being equal, a married man, preferably with children, will be a better salesman than a single man, because of his obligations.

2. If a man knows every bartender in town, use caution in hiring him as a salesman. You know why.

3. It is usually best to develop your own salesmen from raw material if

you are in a position to do so. If you hire a trained salesman from another business, or from a competitor in your own business, just remember that he will leave you someday for greener pastures just as easily as he came to you.

4. A man who can, and has, sold anything and everything, never staying with one job very long, should not be hired. He is not a stable personality, he is easily dissatisfied, he lacks any sense of loyalty and he

Those YELLOWING LEAVES may turn GREEN IF YOU SPRAY THEM WITH

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West coast and X. X. Superior
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Special equipment built to your specifications.

IT COSTS NO MORE
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**FOR OUR PACKING OF
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Write for prices and samples.

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**TOOLS & ALL SUPPLIES for
Nurserymen and Tree Surgeons**
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ZIP-STAY LABELS

MARKHAM'S OHIO NURSERY
ELYRIA, OHIO

Advertising, plant name, color-banded
and plain labels. Write for price list.

MARKHAM'S OHIO NURSERY, Elyria, Ohio

will soon be gone to chase another rainbow.

5. Think long and hard, and then do not hire a man who has not been successful in his previous job. Likewise, you cannot afford the luxury of hiring a man who has been fired, unless you know both sides of the situation and hold him blameless.

In summary of my remarks on selection, may I repeat that

1. Salesmen fit into the business picture as the heart of your distribution.

2. You will need good salesmen in the days ahead.

3. To get good salesmen, you must know the qualities your sales job demands and you must select the man who has those qualities.

4. Selection requires human appraisal, an ability based on good judgment and experience.

5. You must have both long-range and short-range views in solving the problem of the selection of salesmen.

Having selected a man for a sales job, you now face the problem of training him. The amount and kind of training you should provide, together with the method of administration you should use, must be determined only after

1. Visualizing the general characteristics of a sales job, and

2. Visualizing the relative complexity of your particular sales job.

Here are the general characteristics of a sales job:

1. The salesman must go out to see the potential buyer; he cannot wait for the buyer to come to him.

2. The salesman must create demand; the nature of the job requires it.

3. The salesman must plan his own work and time; there are no clocks to punch.

4. The salesman must know his products and their merits.

5. The salesman must know more about the needs of the buyer, as they pertain to these products, than does the buyer himself.

6. The salesman must develop in his territory respect for, and appreciation of, his firm and its business methods.

7. The salesman must know and do all the things necessary to enable him to sell.

These then are the general characteristics of the sales job.

For your consideration, while thinking about the relative complexity of your particular sales job, I might point out that many men are loosely labeled "salesmen" who are not salesmen at all—they are order takers. It requires no special training to sell an item to a man who is asking

Cloverset Pots

**Help You Grow Better Stock
Help You Make More Profit
Bring Your Business Up-to-date
For Roses, Perennials, Chrysanthemums, Vines,
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PLANTS ARE EASILY REMOVED FROM CLOVERSET POTS. No hatchets or can openers needed.

THEY ARE DURABLE. They are durable enough to permit growing your plants in them the entire growing season.

THEY ARE LIGHT. They are light enough (they weigh only 1/30 as much as a clay pot of equal soil capacity) to be easily handled.

THEY DO NOT DRY OUT. They are non-porous, which means they will not dry out quickly on hot or windy days, and therefore do not require constant watering as does a clay pot.

THEY MAKE THE PLANT LOOK LARGER AND BETTER. They are so finished in appearance that they add to the attractiveness of the plant grown in them.

LARGE SOIL CAPACITY. They are large enough to comfortably accommodate the roots in a natural position of any No. 1 Rose Plant and all the most salable size shrubs and small trees.

THEY ARE CHEAP IN PRICE. They are so cheap that they can be given away with the plant which insures the safe arrival, in first class condition, of the plant grown in them, to its final destination.

THEY MAKE THE NURSERY BUSINESS AN ALL SUMMER BUSINESS. They permit the nurseryman to extend his selling season from early Spring through the Summer and Fall, and to plant Roses and other nursery stock grown in them even in the hottest Summer weather without the least sign of wilt of either the foliage or the blooms.

YOU CAN SELL YOUR PLANTS IN BLOOM. By growing your stock in our pots you may sell it in full foliage and in Full Bloom, when it will command the best price and more profit.

CLOVERSET POTS are the ideal medium for cash and carry sales.

Write for free circulars and catalog giving description, size and price lists and technical instructions for use. Sample carton, all sizes, standard heavy weight, 25c. Write today, send your problems, inquiries and requests for information and we will try to assist you from our experience and the experiences of users throughout the country.

URGENT REQUEST AND NOTICE!

Spring needs should be anticipated early. Freight shipments are slow and express should not be requested unless weights and cost have been checked. We are making prompt shipments, but users waiting too long to book orders may meet with disappointment if demands for spring needs will flood our office at late dates.

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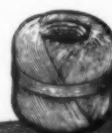
Ernest Hoyaler & Son

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Here's our problem... What do you recommend?

Before the war disrupted supplies of Nursery Twines, such inquiries were met and drink to us. Too often during the war years it has not been possible to make either an intelligent recommendation or any kind of delivery. Now that supplies are again becoming available, it will be a pleasure to recommend and supply the Twines required for the needs of the greatly expanded postwar Nursery Industry.



"SINCE 1840"

GEO B CARPENTER & Co.

you for it. On the other hand, it generally is conceded that the engineering salesman and the life insurance salesman require highly technical knowledge and training. Other types of salesmen range somewhere between these two extremes.

While you remember that the life insurance salesman's training is of a highly specialized nature, I should like to present a thumbnail sketch of the training program provided by the Mutual Life Insurance Company of New York, which program I use in my job of selecting and training salesmen.

Once selected, the man takes three courses which may be roughly likened to grade school, high school and college. These courses cover a full 3-year period of study and stress constant application of knowledge acquired on such subjects as life insurance fundamentals, various types of property, principles of company operation and advanced underwriting, embracing tax and business insurance. This training is designed to equip the salesman to render a service that is professional in concept and in practice. He is trained not to sell policies as such, but to:

1. Uncover and analyze needs.
2. Build income programs from existing policies, and from new insurance when desired, to satisfy those needs.
3. He is trained to coordinate life insurance with social security and other sources of income in order to get the maximum value from all of them.

During these three years, the salesman will have attended six company regional schools. He will have had 134 hours of classroom work under skilled instructors. He will have had 156 weeks of supervised study and field work, and he will have had eleven examinations—after that he can take a day off to go fishing. You can readily see that we believe there is no short cut in building a good sales force.

Up to this point, we have considered the general characteristics of the sales job, and we have some perspective for pegging the complexity of your particular sales job by knowing the extreme at either end. Tempered by these two considerations, the training program should have the threefold objective of

1. Equipping the salesman with technical knowledge.
2. Teaching the salesman to manage himself—to organize his work and to plan his time.
3. Developing the salesman's ability to sell.

The training program that does not

TWO NEW ECONOMICAL—EASY—OFFICIAL TREATMENTS FOR QUARANTINE CERTIFICATION.

LARVA-TOX 90-10 (Ethylene Dibromide-Ethylene Dichloride)

A new material that meets government Japanese Beetle Quarantine requirements for treating bare rooted woody stock by the dip method. More economical than washing and eliminates the necessity for a treating chamber.

Pt. bottle (makes 42½ gals.) \$1.00 ea.; case of 12, \$10.20.

5 gals. (makes 1897.5 gals.), \$33.00 ea.

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Used in treating potted and balled plants for certification. Also an excellent material to use on ground beds and benches to control soil insects. 1 gal. will make 200 gallons of solution.

Pt. Bottles, 12 to case, \$7.20 per case.

5-gal. drums, \$21.00.

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CLEAN—ODORLESS—SOLUBLE—POWDER

USE HYPONEX to grow bigger and better flowers and vegetables in poorest soil—even in sand, cinders or water. Excellent fertilizer for trees, shrubs, lawns and houseplants.

USE HYPONEX for top dressing, seedlings, cuttings and transplants. Produce strong root systems and stems, also more and larger flowers and fruit.

SELL HYPONEX to your customers. Nationally advertised.

1 oz. packet... 10c.—packed 72 to case—wt. 7 lbs.
3 oz. can... 25c.—packed 24 to case—wt. 12 lbs.
7 oz. can... 50c.—packed 24 to case—wt. 14 lbs.
1 lb. can... \$1.00—packed 12 to case—wt. 16 lbs.
10 lb. drum \$5—25 lbs. \$15—50 lbs. \$25—100 lbs. \$40
Commercial growers and dealers receive 22-1/3% discount from the above retail prices.

BUY HYPONEX from your jobber or send \$1 for 1 lb. (makes 100 gallons). \$1 credited on first order for 1 drum or case.

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For burning green weeds, brush, sprouts, also for light black-smithing, thawing, disinfecting.

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Build Your Own Irrigation System

Using the nozzle that gives adequate irrigation on low operating cost. Covers 40-foot circle on 15 lbs. pressure. Complete even coverage improves yields and quality of crops.

Plan and instructions sent upon request.

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CHARLES SIZEMORE Traffic Manager

319½ Georgia St., Louisiana, Mo.

Loss and damage claims against railroad and express companies collected.

Freight bills audited.

Past due notes and accounts collected.

Well known to the nurserymen of the country.

Reference: Bank of Louisiana.

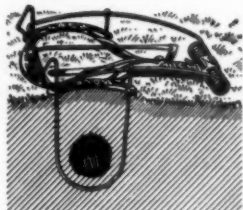
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KILL MOLES



with NASH

CHOKER LOOP TRAPS

You can help your customers get rid of pesky moles as fast as their runways appear with Nash Choker Loop Mole Traps—the one sure way to get moles in any type of ground—proven by 52 successful years. Harmless to children and pets. Approved by Depts. of Agriculture. Price to nurserymen, \$15.20 per doz., F.O.B. Kalamazoo. Suggested resale price, \$2.00 each, plus postage.

NASH MOLE TRAPS

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Learn LANDSCAPE GARDENING

FOR PLEASURE OR PROFIT
• TO START YOUR OWN BUSINESS

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A thorough interesting home training covering your regional conditions for both those who wish to become LANDSCAPERS, DESIGNERS and GARDENERS, and those who wish to learn for their own use and pleasure.

EMPLOYEE TRAINING
Nurserymen from Maine to California are using this training to upgrade employees. It may be of help to your organization.

Send for FREE Information

National Landscape Institute
Dept. N-4, 756 So. Broadway, L. A. 14, Calif.

ATTENTION NURSERYMEN!



IMP. SOAP SPRAY

Use 1 part with 25 to 40 parts of water

Ask your nearest seedman, or write for literature.

THE AMERICAN COLOR AND CHEMICAL CO.
176 Purchase St. Boston, Mass.

PLANT-CHEM SALTS GROW PLANTS with SOIL or without

The balanced plant food with complete nutrients, all trace elements and plant hormone. Attractive, easy to handle, 10c to \$15.00.

Top seller . . . Profitable . . . National advertising . . . Immediate delivery . . . Write today.

PLANT-CHEM, INC.
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Pour it on - Watch 'em Grow!

equip the salesman with technical knowledge of his goods, or does not teach him to manage himself, or does not increase his ability to sell, is functionally defective.

In operation, a training program should provide personalized instruction, in which the new man is encouraged to ask questions of, and to discuss problems with, an instructor who knows from experience rather than from books alone. Book salesmanship and practical salesmanship are, on occasion, poles apart.

The training process should provide demonstration selling, wherein the new man observes and learns from the more experienced salesman.

The training should also include supervision selling, wherein the new man is observed in action by the instructor.

The training setup should likewise provide for continuous in-service training for experienced salesmen. You have to resharpen a saw once in a while. Salesmen grow dull, too. Older salesmen should be handled as a group. New salesmen must have individual attention, although much can be accomplished by group training with them, too.

If you have to originate a training setup, here are some suggestions:

1. Outline what the program must accomplish.

2. Buy some books on selling and subscribe to some magazines in the general selling field. Pick out ideas you can use.

3. Find out what your present salesmen can tell you about what works and what does not work, what objections they meet and how they answer them.

4. Catalog your own experience.

5. If possible, confer with someone in your kind of business who has had some experience in the work you have to do.

6. Your state and national organizations should contribute some help.

7. Set up a definite program to start out on and revise it as experience dictates.

8. Above all, gear the program, not to what ought to be done in selling, but to what is being done successfully by those who are selling in your field.

To bolster your confidence, just remember that all of the sales training courses in use today had to be pioneered by someone, and remember, too, that most of those programs are far from perfect.

At this point, I should like to mention some specific things that every salesman should know. He will be the better salesman if he knows them early:



— STAKES — GALVANIZED STEEL

No. 6 Gauge — .203-inch.
Fine grade hard steel.
Heavily galvanized.

NURSERY STAKES

Length	Per 100	Per 1000
3 ft.	\$3.50	\$29.50
4 ft.	4.70	39.00
5 ft.	5.85	48.50
6 ft.	6.95	58.00

Shipped fresh and new from our mill in Indiana. Delivery in 3 to 4 weeks. We also have BAMBOO CANE STAKES.

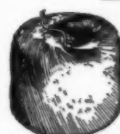
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Recognized and accepted as the two finest TREE WOUND PAINTS, available.

Schupp's LIQUID TREE PAINT

Thin only with Raw Linseed Oil	
No. T-673—1-gal. cans	Each \$ 1.50
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No. T-675—30-gal. drums	Each 29.50
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2-PLY "ISTLE"
Similar to Sisal

10-lb. BALLS—
each (27c lb.)
\$2.70

50-lb. REELS—
each (25c lb.)
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We have SISAL ROPES—1/4-in. up to 3/4-in.

Heavy Duty

- 2-Ply Rubber Tires—
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- For 3/8-in. Axle.
- No. G-260—

Each\$11.95



Our Spring "GUIDE BOOK" soon ready. Send for your copy.

Schupp's FLORIST SUPPLY CO.
Dept. A Wilmette, Ill.

1. It is only half as far from a man's pocketbook to his heart as it is to his head. People in the final analysis buy emotionally, whether they are buying a suit or a rosebush.

2. A straight line is the shortest distance between two points. If you want to sell a landscape job to a factory, selling the personnel manager will not help you if the president is the only one who can give you the "go" sign.

3. It is possible to talk yourself in and out of a sale without realizing it. People like a two-way conversation. By letting the customer talk, you can find out what he is thinking about. A good salesman knows when to listen.

4. The more arguments you win, the more sales you lose. Respect the customer's ability to have a thought of his own. Persuade, but do not argue.

5. Be positive-minded at all times; do not knock competitors. Spend your time positively, by building up your own products.

6. Objections are as natural to selling as water is to swimming. Essentially, opening objections are only a shield to protect a man from buying everything that is offered to him. People many times offer objections only to be reassured at the time when they have decided to buy. At other times, they will hide a real objection by giving a superficial one.

7. People buy when they have confidence in the salesman and in the firm he represents.

8. People buy not necessarily because you sell, but because they feel that they are solving a problem or adding to the value of their possessions. Start by showing them their problem; then demonstrate that your product can benefit them.

9. Use some visual selling. It makes the job easier. The Chinese say, "One picture is worth ten thousand words." We all understand an idea more readily through the eye than through the ear. Visual selling is a natural in the nursery business.

10. Selling is dealing with people. The more you learn about how people think, and act and react, the easier your sales job will become.

These, then, are some of the things a salesman must be taught if he is to be a good salesman. When I hear a sales manager say a certain salesman is lousy, I ask him three questions:

1. Who selected the salesman?
2. Who trained the salesman?
3. Who is lousy?

Regardless of all other considerations, the ultimate responsibility for a top-flight sales force must be as-



Pat. No. 110110

\$35.00

F.O.B. K. C. Kansas

NURSERY HAND TRUCK

Please place your orders as far in advance as possible, in order that we may make early spring delivery. Materials are still difficult to obtain and we are preparing now to do our utmost to take care of you.

SPECIFICATIONS

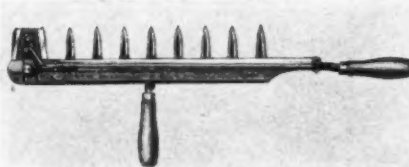
Equipped with Jumbo Balloon Tires and Tubes, 12x4 inches.
Specially Designed Curved Nose.
All-steel construction, electrically welded.
Weight 55 pounds.
Over-all Length 65 inches.
Over-all Width 27 1/2 inches.
Capacity 28-in. Ball weighing 600 pounds.

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CYCLONE HEDGE TRIMMER



A single-blade, multiple-finger trimmer. Double-edge blade cuts in both directions; cutting is continuous, more like mowing. Trims hedges, bushes, shrubs, field plants, etc.

Trims 4 and 5 times faster. Easy to use. Weighs only 3 1/4 lbs.

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10 Tons Crinkled Duplex Waterproof Paper

Mill Ends 7c per lb.

5 tons, 48 to 54-in. Waterproof Paper in 300-lb. rolls, 7c per lb.

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GROW FINER FLOWERS

Save on Fertilizer Costs

It's easy to grow finer flowers and save money at the same time. A new book "Compost and How to Make It" tells how. This 64-page book describes the new method of making finished compost in only three months without chemicals or purchased bacteria cultures.

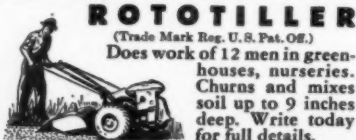
SPECIAL OFFER:

Compost book and a year's subscription (12 monthly issues) to **Organic Gardening** magazine—all for only \$2.00. Send NOW, before you forget, while this special offer lasts. Produce finer flowers the quick easy way.

ORGANIC GARDENING

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ROTOTILLER

(Trade Mark Reg. U.S. Pat. Off.)

Does work of 12 men in greenhouses, nurseries. Churns and mixes soil up to 9 inches deep. Write today for full details.

GRAHAM-PAIGE MOTORS CORPORATION
Farm Equipment Division • Detroit 32, Mich.

sumed by the man who hires and trains the salesmen. He works in uncertainty, his problems are legion, he makes mistakes. Under the pad of my desk, I keep a single sheet of paper. Across the top is the title, "Errors in Leadership, Their Consequences and Their Correction." It is reproduced on the second page of this article.

In closing, may I say that the increased opportunity for the nursery business in the years ahead is evident, even to an outsider. Obviously, your major problems are in distribution. For those of you who use salesmen, any progress you make in the selection and training of your salesmen will lead to an increase in your volume of business and to a corresponding increase in your net profits.

REPORTS SHORT SUPPLY OF HERBACEOUS PERENNIALS.

Reporting on the present supply of perennials, in the bulletin of the Maryland Nurserymen's Association, Patsy Donofrio, of Carroll Gardens, Westminster, Md., states that a considerable shortage exists on practically all varieties, especially at wholesale prices. However, there is a fair supply for the retail trade. This is mostly because many growers are reserving their rather low supply for their retail channel, which, of course, brings in a better return. However, many growers who are engaged in both wholesale and retail trade have tried to take care of our regular and wholesale customers. The shortage will exist, in his opinion, about two years.

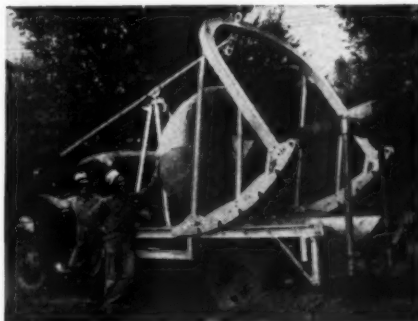
Dividing the perennials into three groups, he gives his opinion as to present and near future supply and demand.

One group consists of peonies, irises, named varieties of pyrethrum and several other species that are only propagated by divisions and are naturally slow in multiplying, limiting rapid production. The supply of this particular group is low and will continue to be so for at least the next two or three years. The prices possibly will remain at the present high level.

In a second group are phlox, veronicas, day lilies, asters, anemones, chrysanthemums, named varieties of Shasta daisies, gypsophilas, poppies, trollius, tritomas, bleeding hearts and many others. The present supply is low.

This group is usually propagated by stem cuttings, root cuttings and divisions. Although the method of propagation is rather rapid, the short-

AUTOMOTIVE TREE MOVERS



After many years devoted to the development and manufacture of tree movers, Williams & Harvey are again starting to produce the latest model Rocker Type Tree Mover.

These machines have been thoroughly tested, not only in our nursery, but by others during the war period. The simplicity in the operation of this mover, plus demountable features, cuts the cost of moving big trees. Write for particulars.



WILLIAMS & HARVEY NURSERIES

Box 7068, Country Club Station,

KANSAS CITY 2, MO.

Mention The American Nurseryman when you write.

NOW TRY PARAGON SPRAYER No. 3 in Your Nursery, Orchard and Propagating Beds.

Ten days' trial will convince you that Paragon Sprayer No. 3 will do your spraying and whitewashing better, faster and easier or it will cost you nothing. Oversize air chamber maintains higher pressure—more uniform spray. Longer pipes and hose reach greater area from one position. Compact truck stands steady on uneven ground; can't jam in narrow places; extra-wide metal wheel rims prevent cutting into turf. Continuous agitation keeps solution from settling in container or clogging strainer and nozzles. Equally effective with any spray, insecticide, disinfectant or water paint anywhere, any time.

Complete with pipes, hose and nozzles, \$25.95. Air gauge, \$2.50 extra. 12-gallon capacity. One-wheel truck if specified.

If your dealer does not handle Paragon Sprayer No. 3 check the coupon and mail direct to us.



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☐ Enclosed find order

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Name _____ Street _____

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"GRO-QUICK" ELECTRIC SEED BED HEATER

BOTTOM HEAT CAN'T BE BEAT

For early plant starting with high germination and fast growth. Invaluable for rooting cuttings. Soil heating cable and thermostat for plant benches and coldframes. Detailed instruction sheet mailed free. GRO-QUICK, 200 W. Huron St., CHICAGO, 10.



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KATPISH BRAND
Rubber Bands
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BOOKS

for Nurserymen

Book A. Illustrates in full color 235 standard nursery items, brief description, substantially bound. Price in small lots, 75c each.

Descriptive Nursery Catalog

Nicely illustrated, 48 pages and cover. 18c each in small lots.

Correct Planting Methods

A pocket-size 48-page booklet. Very complete but concise information, well illustrated. Helpful in preventing claims for dead stock that cost nurserymen money. Sample, 10c. Write for discounts on quantities.

Will send sample copy of each of the above on receipt of \$1.00. Cash with order.

Made to Order

Catalogs, Folders, etc., with illustrations in full color or one color. Thousands of engravings available. Send your specifications or samples for estimate and suggestions.

A. B. MORSE COMPANY
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WOOD LABELS

For Nurserymen

**DAYTON
FRUIT TREE LABEL
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Ray and Kiser Sts. DAYTON, O.

LABELS FOR NURSERYMEN

**THE
BENJAMIN CHASE
COMPANY**
DERRY, N. H.

"COTTONETTE" Nursery Squares
"GIBBALTAR" Frost Covers
HORTICULTURAL PEAT MOSS
RAFFIA for budding, etc.

Write for prices; state requirements.

NEW AMSTERDAM IMPORT CO.
122 Chambers St. New York 7, N. Y.

age of labor, particularly the skilled personnel supervising this method of propagation, has caused production to be considerably curtailed; this, together with much-increased demand due to their popularity and highly skilled nation-wide advertisement, has caused the present shortage.

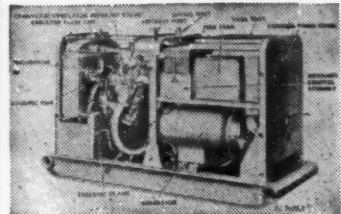
However, because of the rapid method of propagation and the hope of improved labor conditions soon, the supply of plants in this group should be somewhat improved by fall, 1946, and spring, 1947; much more so by fall, 1947, and spring, 1948, and almost to normal by the end of 1948. After that date production should be watched carefully, because by that time, many of the nurseries, particularly the small growers, will have gone through their reconversion period and be ready to propagate part of their own requirements and possibly more.

The third group includes many of the perennials and biennials whose standard method of propagation is by seeds. That includes such well known species as delphiniums, aquilegias, pyrethrums, Shasta daisies, liatris, sweet williams, dianthus, carnations, digitalis, campanulas, hollyhocks, gaillardias, coreopsis and many others.

Although some shortage exists in this group for the time being, these will be the first to come back into normal supply, possibly by fall, 1946, and surely by fall, 1947. It is usually in this group that surpluses appear first, causing some growers to cut prices in order to eliminate their surpluses, which, in turn, affect to some extent the complete line of the hardy herbaceous plants.

With the exception of hardy chrysanthemums, there are few novelties available because of the fact that approximately seventy-five per cent of the new perennials used to come from European countries before the war. This source of supply has been cut off. Then, too, the few nurseries that have had something new are holding these introductions for the near future when business will be harder to get, giving them the chance of offering these exclusive new varieties as leaders for sales promotion. Therefore, with a few of these "hidden" novelties coming along and the European growers free to export again, we should be getting some new perennials soon. However, in spite of the war, we have had some fine new hardy chrysanthemums coming along every year, and there are about ten to twelve new varieties introduced this spring.

FARM and HOME ELECTRIC SETS



NEW GASOLINE ELEC. GEN. SETS

—2.5 K.W., 115 V., 60 Cy., 1 Ph., A BARGAIN. 5 K.W., 115 to 230 V., 3-Wire, 60 Cy., 1 Ph. COST, \$1,529.00. Sacrifice, Kohler 1.5 K.W., completely automatic, all with complete tools and spare parts. Export Packed.

ALSO 10, 25 and 50 K.W. and 25 K.W. Diesel.

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JUTE TWINE

3-ply.

Per lb.

1-lb. Balls \$0.39
50-lb. Reels (Single End)39
50-lb. Reels (Many Ends)39

All prices F.O.B. Wooster.

Shipments of 100 lbs. or more only.

RAY C. SPROSTY BAG CO.

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SISAL TWINE

Again Available

Smooth, white and uniform as before. Clipped and polished.

Prompt delivery in all plies, strengths and put-ups.

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BAMBOO CANES RAFFIA BULBS

Write for price lists

McHUTCHISON & CO.
95 Chambers St. New York 7, N.Y.

STONES Of All Kinds

FLAGSTONE—Mixed Colors ROCK GARDEN—Heavy Stones
RETAINING WALL STONES

SLATE PRODUCTS CO., Millburn, N. J.

3 Way Profit FOR YOU

1. Money-Making WEED Control Service ...
2. WEED-FREE Nursery Operation ...
3. Added Retail Sales ...

Dr. Salsbury's
SELECTIVE

WEED-KILL

(CONTAINS 20% 2,4-D)



SELECTIVELY DESTROYS WEEDS COMPLETELY

More Beautiful Lawns . . . Less Labor

CONTAINS 20 PER CENT 2, 4-D—A NEW WATER SOLUBLE HERBICIDE

2, 4-D (Dichlorophenoxyacetic acid) is a widely known, discussed and applauded scientific discovery. Dr. Salsbury's Weed-Kill is highly concentrated.

You can now kill broad-leaved weeds easily, completely and economically with Dr. Salsbury's Weed-Kill. This service will be appreciated by homeowners, country club officials, city park commissioners and cemeteries. Profitable . . . Efficient method.

You can recommend and sell Weed-Kill with complete confidence to customers who prefer to do their own spraying. Backed up by National-Consumer-Industrial Advertising, your sales will be easy . . . you'll make substantial profits.

One gallon will effectively cover 1 1/5 acres; 5 gallons, 6 acres. For retail sales 1/2 pt. will cover 3,200 sq. feet. A pint, 6,400 sq. feet, and a quart, 12,800 sq. ft.

SELECTIVE WEED-KILL

Kills broad-leaved weeds completely—roots and all; leaves no harmful residue; it is non-corrosive to metal, non-explosive, does not stain, is easy to handle, does not sterilize soil, is economical.

KILLS These and Many Other Broad-leaved Weeds

Bindweed	Honeysuckle	Ragweed (young)
Bitterweed	Jimson	Shepherd's-Purse
Buckhorn	Lamb's-Quarters	Speedwells
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Daisy	Mustard	Teasel
Dandelion	Pennywort	Thistles
Docks	Pigweed	Trefoil
False Strawberry	Plantain	Velvet Leaf
Fern Weed	Poison Ivy	Water Hyacinth
Goldenrod	Poison Oak	Wild Carrot
Heal-All	Puncture Vine	Yarrow

Any kind of spraying equipment can be used. All plants should be covered, as by a light dew.

Each year thousands of dollars in time and labor are wasted fighting weeds. This is your opportunity to offer a service or sell a product that will be welcomed by all proud homeowners and commercial or club lawn executives.

ORDER NOW
OR WRITE FOR DETAILS

DR. SALSBUURY'S LABORATORIES

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SELL THE GENUINE

Dr. Salsbury's
SELECTIVE
WEED-KILL

KILLS BROAD LEAF WEEDS COMPLETELY
...ROOTS AND ALL...

IMPORTANT ANNOUNCEMENT!

Prices Increased 20 per cent.

Due to advances in cost of operation which have come into effect since the publication of our Fall, 1945 and Spring, 1946 price list, prices on B&B Evergreens have been advanced in keeping with this increased cost.

From this date until the end of the current season, new orders will be booked at this increased price.

Price list showing the new rates will be in the mail by the time this announcement is printed.

Labor conditions are extremely difficult this spring and we are, therefore, obliged to accept orders and make shipment as our facilities will permit.

D. HILL NURSERY COMPANY

Evergreen Specialists :: Largest Growers In America

DUNDEE, ILLINOIS